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Thesis on

Problems in the Conceptual Foundations of Contemporary
Geography.

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of the Cambridge Institute of Education; Diploma in Social
Studies; Bachelor of Arts with Honours.

Submitted to the Council for National Academic Awards for
the qualification of Master of Philosophy.

Researched and tutored at Middlesex Polytechnic in the
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Presented during January, 1980.

ABSTRACT

J.E. Gately. Problems in the conceptual foundations of contemporary geography.

A duality developed within geography after Varenius accepted the Copernican paradigm, because of the wish to search for law-like relationships. National geographies contributed their own cultural values. Geographers accepted the cross-cultural terms through translation without being aware that political values were a paramount contribution.

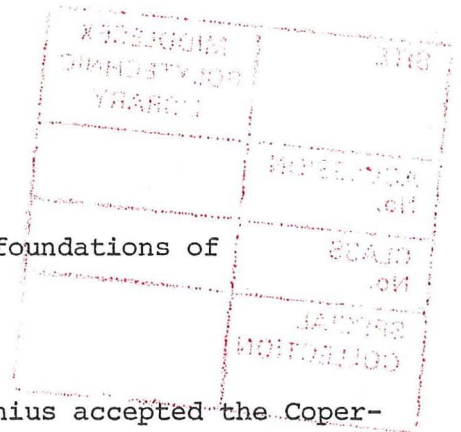
The present paradigm within geography presents an ongoing confrontation between those who wish to quantify material that is amenable to scientific law-like transactions, and those ideographers who expand the regional concept. In Britain resource funding by different government departments emphasises this division.

Geographers have always been eclectic in utilising materials, theories and ideas from other disciplines. This is recently true concerning loans from sociology and other social sciences; for proofs, justifications, theoretical references and explanations. Many usages of social theories by geographers present confusion to sociologists, because of their unusual, if not bizarre applications. Different social theories may arrive at similar ends, but their logic runs through very different routes, from very different philosophies.

Echoing the ideas of Mackinder, David Harvey writing in "Social Justice and the City" suggested that geographers might untangle this web by relating the ideas of social and moral philosophy to geography, in a manner in which methods and philosophy would not be separate. This suggestion has been mainly refuted or ignored.

However from these two authors, it is possible to synthesize the four concepts, that contemporary geography finds problematic to deal with, through a combined philosophy and methodology. These concepts are the nature of scientific enquiry; of theory or explanation; of space; and of knowledge.

The contribution to knowledge in this paper lies in the inference that no form of geographical concept is either value or culture free. Every conceptual form is derived from a social theory, and every social theory has a political bias.



To

Miss Potts,
of The Village School, Little Eaton,
who taught me to read,
and all others of that ilk.

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CHAPTER ONE: NATIONALISM AND THE CLASSICAL FOUNDATIONS
OF CONTEMPORARY GEOGRAPHY

Thus the heavens and the earth were finished, and all the
host of them.

Genesis. 2 v.1.

1.1.1

"The time honoured scholastic method of tracing the growth of a subject from its presumed origins, is singularly ill-fitting in the case of geography. Ancient geography was generically different from its modern representative."

So claimed S.W. Wooldridge, *indicating that over time many conceptual alterations had made an impact upon the disciplines that continue under the umbrella of geography, as indeed they have. In accepting this claim, one may attempt to trace the discipline back to ancient roots, or to choose a cut off point that marks a paradigmatic reformulation. The former choice infers the need for an a-priori definition of geography, which presents needless difficulties, because history socializes one into accepting the causality of the past in defining and determining the present. Therefore a point of paradigmatic acceptance is taken here between the publication of "Introductio in Universam Geographiam" for Philip Cluverius (1624) and "Geographia Generalis" for Bernhardus Varenius (1650).

1.1.2

The former work is derived from a Ptolemaic concept of the universe, the second accepts the formulation of the planetary system as conceptualised by Copernicus. The generic gap of differentiation is outlined by T.S. Kuhn * at length and it is to his notions of paradigmatic change that reference is given in this instance. The replacing of the earth as the centre of the universe, with the sun had many implications. It was a logical assault upon Christian beliefs, it belittled mankind, undermined his evaluation of himself by posing the problems of reason against everyday experience.

1.1.3

The pre-Copernican conception of the Cosmos placed the God ordained Earth at the centre. Geography meant writing about or describing the lands and people of the inhabited world, and speculating about what lay beyond the range of human knowledge; truth and myth took equal values in description, because all acceptable insights were gifts from God. The idea of systematic order amongst the planets gave impetus to the development of western thought in the direction of systematic sciences, firstly as the acquisition of systematic knowledge of all kinds as opposed to the former muddles of the monks and alchemists, and further towards the analysis of factors or determinants. Thus knowledge appeared to progress through the development of orderly sciences. Although Kuhn * suggests,

"One need, however, look no further than Copernicus and the calendar to discover that external conditions may help to transform mere anomaly into a source of acute crisis. The same example would illustrate the way in which conditions outside the sciences may influence the range of alternatives available to the man who seeks to end a crisis by proposing one or another revolutionary reform. (and) I have said nothing about the role of technological advance or external social, economic and intellectual conditions in the development of the sciences."

1.1.4

Kuhn, unwittingly, appears to emphasize a problem that has beset geographers since Varenus accepted the Copernican formulation of the planets. Varenus created a bifurcation in geography as a discipline. He proposed a division in geographic knowledge between general and special geography, and having published *Geographia Generalis* in 1650, died before elaborating his thesis. General geography has since been labelled nomothetic. Constants that were deemed mainly physical upon the face of the earth, could be used to establish generalities that might be applied to like conditions upon the rest of the earth. Special geographical phenomena were those that have since been considered to be ideographic; they offered only treatment that would be explanatory through description. The inherent duality that he saw as explanatorily problematic, still faces geographers today. For Varenus realised that certain processes and phenomena could be explained as objects that were solely physical and subject to law-like generalisations; subjects of the orderly sciences. The atmosphere, hydrosphere, and lithosphere and their relationships with the heavenly bodies would all fall into these categories. Their study could be carried out with some exactitude through geometry, mathematics and the methods then being explored by the physical sciences.

1.1.5

Varenus assumed that much geographic material would never be open to such explanatory verification as was available to the modes of the physical sciences. Topics of geographic study that included man or involvement with human groups would only lead to statements of probability; therefore the method to cope with these studies in explanatory forms was by description. The division of knowledge that Varenus suggested should apply to geography was in keeping with the attitudes of his era and is mirrored in

the writing of Bacon.* It included an important value judgement, as Dickinson * explains:

"Varenius complained, that special geography was always taught at the expense of general (geography), and on this account he argued that geography scarcely merited the dignity of a science. In special geography, features should be explained in terms of general laws, so as to make local geography logical and intelligible."

This division of geography by Varenius has had a transcendental impact upon all later essays in the discipline. He had introduced values, the primary one being notions of science that equated with a higher form of knowledge higher than mere description. Varenius brought a protestant ethic into geography from a Dutch background. The acceptance of Copernican conceptualization of the Universe was more fitting to his times with the new techniques in navigation and the expansion of Dutch interests into Asia. Generalisation of accurate knowledge was already a reflection of the accuracy of charts and tables and improved chronometry.

1.1.6

Science as a value, rests upon the premiss that science adequately explains. Ernest Nagel * analyses the basis of this value judgement. He suggests that there are four types of explanation commonly used in the sciences (including the social sciences), each one showing a variation upon the logical pattern of how comprehensive and accurate responses to the question "How?" are arrived at.

1.1.7

The four patterns of explanation that Nagel chose to elucidate, he termed deductive; probabilistic; functional (or teleological), and genetic. "The Structure of Science" is analytical and argued in depth, but gradually he creates from these patterns of explanation a hierarchy of values, until he posits one explanation against another, reinforcing Varenius' similar division and value judgement with: *

"However acute our awareness may be of the rich variety of human experience, it is not likely that our best interests would be served by stopping objective inquiry into the various conditions determining the existence of human traits and actions, and thus shutting the door to the progressive liberation from illusion that comes from the knowledge achieved by such inquiry."

This is an emotive passage of writing, that is hardly in accord with

Nagel's stated aim * in composing the book "that the distinctive aim of the scientific enterprise is to provide systematic and responsibly supported explanations."

This is hardly representative of 'conditions determining human actions' and 'our best interests' together with 'liberation from illusion,' unless Nagel was unaware of the naturalistic fallacy. Science is supposedly value free, in order to be objective. Objectivity is a requirement of the scientist in order to separate truth from myth, and to avoid the intrusion of his own personal emotions into the substance of his findings.

Varenius separated his geographies by rendering to science, that which was scientific; and unto man that which was determined by human traits, yet three centuries later Nagel considered that enquiry into human traits by scientific methods would achieve progressive liberation from illusion. This would have to be realised by changing the status of scientific or non-scientific to a hierarchy of explanatory values.

1.1.8

A paradigmatic change within a discipline is not an instant overnight rejection of the old for a progression into the new. Even revolutions take a little longer. As Kuhn * suggests a major difficulty with an incoming paradigm, is for the innovators to utilize their time in applying the new forms. The old knowledge does not 'go away' and new knowledge is slow to replace it.

So in geography the work of Cluverius was partly incorporated into that of Varenius, especially into his outline of special geography. This was noticeable in the use of the term chorography or the description of large countries; the term topography which offers views of places and small tracts of land upon the earth. Both geographers works continued in use for decades, but only the notions of Varenius have persisted in geographical texts to the present day. Scientific knowledge or descriptive passages of travelogue are both constant features included in geographical texts.

1.1.9

From the Varenian point of paradigmatic change, geography has divided its subject matter into that which was scientific and that which did not fit into scientific modes of explanation adequately. Placed in Nagel's hierarchy one may instance: geomorphology as deductive geography; hydrology as functional geography; population studies as probabilistic geography; historical geography as teleology and environmental and cultural studies

as genetic geography. As one progresses further from deductive reasoning towards ideography then the claims to being scientific become weaker. But geography is still divided, and division is concerned with severance, discord, distinction, order and prescription, which are values. Though the division of geography may date from the acceptance of Copernican thought, these values are still inherent within the discipline. Severance is found in the 'cutting-away' of the Earth Sciences, discord is found in title words as Radical, Humanistic, Revolution, Ideology, Progress; all gauntlets thrown at some other geographers. Distinction is idealised in other titles, as Evaluating, Models, Concept, and Frontiers. Re-ordering of the subject is offered by prescription.

1.1.10

There is no simple causal relationship; the division within the subject has been elaborated with a web of cross cultural values from the contributions of different 'national' schools of geographers. The science that Nagel proposes reflects that accumulation of knowledge which geographers use and the certainty that they appear to share in putting forward their ideas. There might be cross cultural agreements concerning methods, but the ideologies of nations are more problematic in their cross cultural transmissions. Every nation has an ideology to explain to the world, and a world to explain to itself within the frame work of its own ideology. Geography would appear to be a factual, objective and impartial vehicle where this process has no obvious place.

1.2.1

To suggest that there exist national schools of geography is both assertive and a labelling device. In this instance, it is a convenient vehicle for transmitting the idea that cultures are dissimilar, even though it is often assumed that similar disciplines show fundamental relationships between science and value. As a device four traditions will be considered; the German, French, North American and British. These four traditions conceptualized the world differently, because their national political objectives were divergent. Their different geographies aimed at different outcomes, because each nation had to justify different policies to the world and to themselves. German geographers offered data gathering and methods, the French offered ideas and microstudies, the Americans gave ideology with positivism, whilst the British showed a major concern for synthesis.

1.2.2.

Although these national schools presented language difficulties to one another, in every case translation and transmission of ideas had taken place with some continuity. The interchange of methods has included the determinative ideologies from nation to nation, and the individual states have lent political undertones to each exchange. The German ideal was to enclose their state upon the boundaries of the German tongue; the French had to justify their frontiers by imposing a common language; the United States had to justify the destruction of the natural environment and its inhabitants in exchange for profit, whilst the British had to account for a massive, accidental and haphazard Empire.

1.2.3

Key contributions to the 'German School' of geography were made by von Humboldt and Ritter, whose contributions are extant in present geographies. Von Humboldt set out to gather data through the study of local areas from which a German school of field work evolved which is termed 'Heimatkunde' or the study of one's homeland. Although much of von Humboldt's work was carried out in the New World, the intention was to apply the methods that he established to the notions of the Fatherland. 'Heimat' has very similar emotive meaning to Germany, as 'home' has meaning to the English English. Von Humboldt saw an inter-related gestalt of the universe, the notion of 'Zusammenhang' * is fundamental to this conceptual formulation.

'Zusammenhang' derives from a philosophical view of the world from a Germanic tradition; it is used by Froebel and Pestalozzi in education, Max Weber in Sociology, and the gestalt psychologists. Moral philosophy was the virtual arbiter of man's inner world, whilst the field of natural philosophy was derived from man's senses and was concerned with the physical world. This dichotomy was not supposed to be divisive but synthetic.

1.2.4

Von Humboldt's geographer did not delve into moral philosophy, but had the whole field of the observable world at his disposal. Empirical knowledge to Von Humboldt, was based upon the thoughtful observation of phenomena available to the senses. Geographic expertise thus studied the content of area, that is land, people and culture. Von Humboldt established a tradition from his researches into the details of the virgin lands, peoples and cultures of the Americas, through the detailed attention to methods relating to the distribution of natural and organic phenomena and their areal associations. People as objects, together with their works were included as organic phenomena, but man as a subject was left from these studies

as an item for anthropology. In the introduction to "Cosmos", von Humboldt set out his philosophical attitude as follows:-

"The most important aim of all physical science is this: to recognise unity in diversity, to judge single phenomena separately without surrendering to their bulk, and to group nature's essences under the cover of outward appearances."

1.2.5

Knowledge for von Humboldt, fell into three groups. There were the systematic sciences in which phenomena were classified according to analogous characteristics. There were the historical sciences which concerned the development of animals, plants and rocks as existing groups, because his knowledge was prior to Darwin's publication of the "Origin of Species." Thirdly there was the science of the earth, or physical geography. His knowledge lead him to consider scientific material thematically. Natural philosophy as a history shared a gradual emergence of concepts concerning the cosmos as an organic whole. These concepts arose through definition and limitations of the physical descriptions of the world as a geographic descriptive discipline, in its own right. The concepts were then enhanced in an objective manner as empirical and actual aspects of nature in a scientific form. For instance, he condemned the numerical listing of flora by continents, since this obscured the distribution of vegetation and its relationship to climatic zones, and he stressed that factors other than climate affected plant distribution. Not only did he recognise unique landscapes, but showed that they had relationships with similar areas in other parts of the world. He believed that the 'inner' forces of mankind would through emotion and imagination, create incentives to study these natural spatial distributions within the cosmos. Some aspects of von Humboldt's attitude make his work of more than passing historical interest. He viewed man as an objective part of the physical attributes of the earth, but that mankind had qualities that varied in relationship to his environmental reciprocities: so that man did not inherit the earth by divine right, but lived in exchange with it. *

1.2.6

Von Humboldt studied the geographic fragments of his time; that is to say that the world had yet to be surveyed; and related them to a presumed cosmic whole or totality. His interest in geology was not that of a geologist, his detailed measurements were not those of a surveyor, nor was his interest in the inhabitants whom he met just the interest of an

anthropologist. These facets of the world were supplements to a scientific whole. His detail of objective data gathering was meticulous, his transects in America are still worthy of study. By observation of and upon the complexities of these phenomena, von Humboldt attempted to explain their spatial locations. In this manner he closely approaches Varenus' notion of general geography, in that he, von Humboldt invariably attempted to compare the locations and quantities of terrestrial phenomena from their unique environments into generalized groups across the globe. Martonne* considers that this type of explanation is a prime attempt at offering geographic causality. Even if von Humboldt formulates his explanatory reasons teleologically; in that he was not certain of an evolutionary process, but considered that God was a prime mover of creation; he gave a classical impetus to geography other than the mere exploration of unknown lands. He set up a method of data collection and thus adequately justified the quest for scientific reasons, in a search for knowledge. He also gave for the Germans the notion of similarity of units across spatially separated units or regions of land. Similarity could exist in dissimilar areas. It required a second ingredient to show that scattered pockets of the same language across a continent could be logically extended to that hideous trilogy of my youth: Ein Volk, ein Vaterland und ein Führer.

1.2.7

At the same time as von Humboldt was exploring the world Carl Ritter held the professorship of geography at Berlin. He was a life long student and was greatly influenced by Pestalozzi, who was an advocate of 'natural growth' theories in education. In turn Ritter greatly influenced senior members of the Prussian Army. Ritter claimed that the theme of his work was a comparative one aimed at showing the connection between history and nature. His first major work concerned Africa, his second work concerned the movements of peoples between Asia and Europe. He believed that the earth was an organism, to fit the needs of man to perfection, and he claimed that it could be possible to determine the development of a nation, in advance of history, in order to "retain the welfare which Providence has appointed for every nation whose direction is right and whose conformity to law is constant." In geography he attempted to establish the following precepts:- "the fundamental rules which should assure the truth to the whole work is to proceed from observation to observation, not from opinion or hypothesis to observation."

"Although there may be geographic scientific laws, there is little success

in trying to establish them a-priori; we must ask the earth for its laws."

"we must show a coherent relationship (Zusammenhang) of different features in terms of cause and effect, and thus derive the 'essential character' of each area."

However Ritter's explanation of boundaries, regions and areas is confused by his commentators, as they introduce their own biases and justify these from his 'translations' as referees.*

1.2.8.

Von Humboldt had introduced the notion of linkages between regions. Ritter reinforced this by presenting ideas concerning the unique and distinct geographical unit with, "observation must be organised according to the chorological principle (he uses 'raumliche' which perhaps means spatial) to present the geographic-physical conditions of the earth surface especially as a fatherland of the peoples in its most manifold influence on humanity developing in body and mind."*

Here he stresses the notion that geographical boundaries are language boundaries, and that the Fatherland has deep geographical meaning in the context of the German speaking peoples. In later studies of Heimat Kunde the influence of language becomes a determinant of geographical oneness of race. A contemporary criticism of Ritter is of interest, because it foresees the present debate in geography, which will be considered in Chapter Four of the paper. Frobel * said, "If nature must be studied according to physical forms of judgement, it does not follow that one may not also regard nature, as well as the moral world, according to ethical forms of judgement...but many of our natural scientists commit the error of believing that that against which they close the eyes of the mind therefore does not exist."

1.2.9.

The German tradition in geography seems to follow a path of relationships. The method of data gathering being meticulous proceeded from observation to observation trusting that the earth would reveal its laws. But the coherent relationship in terms of cause and effect involved an implicit determinism in the search for 'essentials'. These essentials gave an ideological emphasis upon the link (Zusammenhang) that bound geography together, firstly the Fatherland, secondly the Lebensraum or national space, in which the Fatherland could become an entity. Method, determinism and ideology became the coherent relationship of German national geography. Two examples of this are, firstly upon Von Thunen's

gravestone the simple method and data of A = \sqrt{ap} * Secondly there is the contribution of Friedrich Ratzel, which seems to have generated so much animosity amongst those who write commentaries upon his work.* Ratzel influenced by the "Zusammenhang" of tradition, was concerned with the interdependence of phenomena, rather than reasons, causes and distributions, thus giving a different emphasis to the meaning of data and the methods of its collection from those who had set out the German tradition. A basic concept that he held was that the state is a particular spatial grouping on the earth's surface. As a biological organism he saw "every state as a piece of humanity and a portion of the earth." This concept gave certainty to the geographical character of Lebensraum, the geographical area within which living organisms develop. The character of German national geography was this relationship of method, determinism and ideology.

1.3.1.

French geographers moved away from the determinist philosophies that were readily at hand, and established a school of possibilism, especially at a theoretical level. French philosophers offered justifications for the amalgam of those diverse peoples within the Republic. Sociologists had to explain the forms of consensus that held them together, and determinist ideas suited both these cases. Geographers however, had to show how very different regions, with very different peoples having different ethnic and linguistic roots, lead the whole nation into taking the choice to 'become French.'* The French geographers had to justify the unification of one country by the imposition of a single language. To contemporary geography, the French have given ideas and microstudies, which appear to have been generated by actors in a philosophical debate. A contribution to advance the notion of geographic possibilities was made by the Comte de Buffon *through the writing of his massive text "Histoire Naturelle" which was published between 1749 and 1804. He referred to the seven periods of the earth's formation and evolution in "Des epoques de la nature"; in the final stage of which he considered the power of man aiding that of nature. In this manner he puts forward an idea of a thesis of possibilism, that is to say, that there was a creative power (which need not be God) underlying human society. Therefore in a particular environment, a society would have a limited choice of ways of development. However, once that society had established a line in which to develop, thought would have to be given to the ensuing

environmental impact, and to the conservation of resources.

1.3.2.

The notion of choice in the environmental management would therefore negate the possibility of a determined social development, because although each society might be faced by limiting factors, choices were never closed. Malte-Brun, a Danish exile in France took up this notion when he wrote "Precis de la Geographie". In this he divided France into five natural 'regions'*. These were The ancient mountains, the recent mountains, the French plains, the coastal regions, and the water-systems. Each of these were given characteristics which were supposed to be common only to each, thereby rendering description more detailed. This procedure Dickinson * suggests is "the one by which its chorography may be most conveniently explained." Into this form of convenient explanation, Malte-Brun intended to introduce a description of the lands and peoples of the earth. This idea is quite contrary to the micro-studies of Le Play, where there was a suggested inter-relationship between the place; as a point upon the earth, which limited the type of work that would be available. Which in turn determined the nature of the folk who would live and work there. For instance the sea shore would determine that fish would be available to fishermen, just as the escarpment above would determine easy access to the gallery mines of miners, whilst the forest above the mines would determine the occupations of foresters and hunters. Major areas of the world might not seem so deterministic, but to Malte-Brun, the major regions of the earth would still limit total possibilities of diversity, but would open up limited choices for the inhabitants. The French would be allowed to see their world as open to individualism, variations and choices, as long as they took their French culture with them, and realised that questioning the unity of the French language was beyond their possible range of choices. This was part of their geographic 'genre de vie'.

1.3.3.

By 1922 almost every chair of geography in France was occupied by a student of, or a student of a student of Vidal de la Blache. Although he lived from 1845 to 1918 contemporary French geography still pays service to his influences. Vidal de la Blache* accepted the ideas of de Buffon and Malte-Brun in this manner: "The dominant idea in all geographical progress is that of terrestrial unity."* The ideological importance of this is central to French geography and he therefore reinforced the statement as follows:- "For most historians and

sociologists geography exists only for purposes of consultation. One starts with man in order to come back to man once more. One pictures that the earth is a 'stage upon which man's activities take place', without reflecting that the stage itself is alive. The problem consists in enumerating the influences affecting man, in an attempt to discover in how far a certain kind of determinism is operative in the events of history...answers to (these questions) require a knowledge of the world wider and more profound than any available until recently." *Here he states that history and sociology, of the determinist tradition act as limitations to a true understanding of geography, through the ignorance of historians and sociologists. Therefore in order to 'evaluate the living stage and to avoid the operations of a certain kind of determinism' 'La tradition Vidalienne' emerged in France. It appeared as a series of micro-studies of regions. This was not geography in itself, but merely a methodological tool of explanation. No one would credit that the French language had been joyously accepted by the Catalans, Flemish people and Alsatians, nor that the French culture had determined their acceptance of an alien tongue. Possibilism in geography seemed best confined to study of the interactions within small environments, then the nature of force would not seem a paramount influence upon these people.

1.3.4.

The western tradition of telling a tale by parable frequently misleads the audience away from the real meaning of the examples used, when the underlying philosophy is not adequately explained. Vidal de la Blache concluded his discussion with the historians and sociologists* with, "The growth of the European agglomeration thus appears to be an achievement of intelligence and method as much as a natural phenomenon."

*Rejection of determinism was paramount in his aim to show, "That which geography can offer, is the aptitude not to break up what Nature brings together, to understand the correspondence and the correlation of facts, be they in the terrestrial milieu..., or in the regional environments in which they are localised." *Vidal de la Blache's facts were wider and open to permutations and possibilities, much wider in scope than the determined 'social facts' of Durkheim, and deeper than the economic determining facts of Le Play. It seems possible that this notion of social understanding coincided with Max Weber's notion of 'Verstehen' (see Chapter 3). Abraham* states "The development of French sociology followed a course that had no parallel elsewhere. One can discern...

an unbroken strand of thought from the time of the Encyclopaedists to the end of the nineteenth century, grounded upon philosophical reflection," Vidal de la Blache had a vested interest in breaking this unbroken strand. If geography were to exist in its own right in France, it had to move away from determinist philosophy and establish the idea that there were varieties of causes and effects. Otherwise they might conclude that their state was a sham, linguistically diverse and had had unity imposed upon the people.

1.3.5.

French geographers had the alternative of stating that all human activity could be related through time to the ultimate determinant of the human environment, or they could outline ongoing processes of regional occupation through processes of analysing complex cause and effect chains and relationships of peoples in small environments. Harvey suggested* that they "seemed not so much at war with the causal principle, but rather to have disagreed with the determinists over the identification of the ^{right} cause and/effect." Vidal de la Blache sought through possibilism a construction for entering into an understanding of the motivations of the significant 'others' *who populated and formulated his regions, only at an adequate level of causation; which constitutes a very different form of knowledge from that of the French historians and sociologists. If there is a determining factor in Vidal de la Blache's geography it is the ideology that justifies the French state.

1.4.1.

Out of America, the impact of theoretical geography was brought from Germany to Britain through translations. The ideas arrived more easily than from Europe, the language was vaguely familiar, even though one still wonders what had been done to it. But the ideas although claiming Germanic origins were continuously adapted to the ideology that the American States wished to convey to their people. Geographic justifications had first to be given to the development, or exploitation of the continent. This was through the destruction first of the native inhabitants and their resources, then through the exploitation of the land, the slaves, and the natural resources, such as timber and water. A geographical folklore had to be established concerning the pioneers, the settlers, and

the law. Secondly there had to be a justification established concerning the destruction of the gains of the first settlers and the economic amalgamation of the fruits of their toil through the processes of law, into the hands of those who controlled the capital. The status of profit had to be shown to be higher than the lot of humanity. Dickinson * has recently compiled a domesday upon the work of those American geographers who have contributed to this ideology. The two considered here are Ellen Semple and Richard Hartshorne.

1.4.2.

Ellen C. Semple wrote "Influences of the Geographic Environment" in 1911, and thus introduced Ratzel's notion of geographic determinism (section 1.2.9.) into the literature of English reading geographers. Her stressing of his formulations of determinism spread these ideas amongst American geographers. However Miss Semple may have been Ratzel's pupil, but she firmly refused to act as his translator.* She had a different story to tell for a different national ideology, she wished to firmly eliminate the Germanic theory of the organic state and the organic society from American geography. Ideas of natural growth might justify equal rights for all German speaking peoples in Europe, but America did not require any equalities for all Americans, not during an era of social control through wealth. Secondly she wished to reverse the society - environment relationship of the Germanic construction to an environment - society relationship which would establish a reasonable justification for the American theft of the Indian lands. Within the German formulation, the wealth of the Ruhr could exist easily besides the poverty of Prussia, as long as there was a linguistic tie of the German culture. In America there was only the wealth of the environment and its inhabitants that were open to exploitation of a capitalist society. This choice of formulation is still vital to those who "see geography's existence only for purposes of consultation", because here is established two very different geographies drawn from apparently identical factors.

1.4.3.

Miss Semple insisted upon the justification of a theory of social Darwinism, in order to explain the processes by which the Americans had had to establish forms of their civilization upon their empty environment to the south and west. The environment had to justify the society that it had created, because the Europeans had been in the land for too short a time to claim to have made inroads upon the continent and thus alter

the environment. There is a duality in this claim if it is to be seen as truthful. Hartshorne * considers the immediate difficulties of Semple's claims at length, because Hettner * had pointed out, from the Germanic tradition, how unsound it was to proceed from the consideration of natural factors to the explanation of human phenomena. Consideration of the natural factors can "arrive only at possibilities: the decision lies with man... A sure scientific knowledge of the actual existing causal relationships is only possible if one proceeds from the human facts, classifies these and pursues them to their geographic roots." The construction of 'Semple's choice' leads to an inbuilt dualism that echoes the worst features of the Varenian division, because one is lead to study either one part of geography or the other. The invitation is to study the 'natural environment' in itself. This then, as Hartshorne * insists becomes to geographers and to social scientists "the geographic factor". Human geography then becomes the study of the influence of the environment as a factor upon man.

1.4.4.

Semple's geography became dualistic in three ways. It separated the study of natural phenomena from human phenomena. Therefore it must use the techniques of the natural sciences differently from the techniques of the various social sciences. It presents two different, but fundamental viewpoints when studying the natural and human attributes of phenomena. These forms of dualism have a doubling effect, which was pointed out by Hettner * writing in 1905 when he examined the dual meanings of 'zwiespaltig' in this very context. He showed how the semantic dualism of 'dualism or discordant' could lead one on, until the "logical unitary structure of geography was thereby destroyed." Miss Semple's fundamental move away from Ratzel's geography was because the cultures of Germany and of the United States of America diverged. The reason was ideological. This discordant ideology persists in American geography. Sauer * wrote: "For the present, living beyond one's means has become a civic virtue, increase of the 'output' the goal of society. The prophets of a new world...may be stopped...They may fail...They may be checked...What we need more perhaps is an ethic and aesthetic."* One allows recognition of ideology when it is given positive or negative appraisal; and 'perhaps' and 'needs' in the above extract only verify the existence of these values. To travel from the dominant 'good' of capital exploitation to the discordant nausea of the contrary American ideotheme, one has only to read John Leighly's tribute to Sauer.*

"The people who move upon the scene of this account are 'homefolks' one and all." etc. Is this geography? Picture for ever 'Johnboy'* living in the cosy virtuous home, poor but honest, surrounded by a rapacious capitalist morality. Or is it the heads and tails of a dualist ideology?

1.4.5.

Spate wrote* "It is almost customary these days to play down the works of Huntington as 'naively deterministic'. This overt confession of ignorance of the substance and procedure of a great scholar who made specific contributions to our knowledge of human societies." As the manifest destiny thesis of the American way of life began to be questioned, so did the questioning have to take place of the theories of Semple and the theories of climatic determinism of Huntington. He followed the environment / man formulation of Semple, and considered the biological and physical environmental determinants upon civilisation. Further to this he 'measured' civilisations and pre-ran the present generation of quantifiers, even though some doubt his statistics as little more than engineered value judgements.* Huntington was an itinerant scholar and teacher, his field researches mainly in Asia and Europe lead him to expound two major intertwining themes. These were the role of biological inheritance and the physical environment upon the course of history. In so doing he lead American geographers into two dark abysses. From Semple's environmental determinism Huntington entered into theories of physical determinism. His correlations between weather flows and human activity are frequently criticised upon these grounds. However it is not so often noted that his contributions to geography also lead to explanation through psychophysiological attributes to human beings, for how else could they explain their determined behaviour to themselves? This brought the inclusion of the psychological factor into the geographers' toolbox of variables.

1.4.6.

Huntington writes, "unfortunately, no widespread statistics are available for such qualities as idealism, altruism, honesty, self-reliance, originality and artistic appreciation." Spate* continues: "Yet he finds quantitative measures of these...This lack of sympathy is very evident in his 'ranking' of the world's religions..." But this white Anglo-Saxon Protestant attitude was only an attribute to the control of power in America. But this form of positivism is shunned by even Karl Popper * when he claims "(physical determinism) is a nightmare, because

it asserts that the whole world is a huge automaton, and that we are nothing but little cog-wheels within it." Yet the quantifying of qualities and the ranking of values is continued in this American tradition by Nagel in the logic of the scientific explanation, and appears as an acceptable mode of explanation in a myriad of geographical texts. *The nature or causality of the introduction of ideological and positivistic explanations, is interesting in itself, but the stressing of these notions by Huntington underpins much of the work of those who followed him, even when they claim to disassociate themselves from his 'avowed determinism.'* This includes Richard Hartshorne who states that if Huntington's thesis regarding climate should be substantiated, then history should be rewritten as a systematic study relating to climatic changes.*

1.4.7.

In his two outstanding researches * Richard Hartshorne avoids environmental and physical determinism in his efforts to familiarise American scholars with foreign literature. But he presses on with American ideology and positivism. As in "The purpose of methodological writing is neither assertion of independent opinions nor contentious argumentation, but rather the clarification of problems of mutual concern." *His assumption of mutual concern infers some collectivity of ideas already existing amongst a collectivity of geographers. However it would appear that the ideologies and politics of America and Europe offered no mutual basis for this assumption. In his major work (1961) * "The Nature of Geography" he consciously chooses. "The examination of the historical development of concepts concerning geography, and substantive work in it leads to the following conclusions"; When he claims that geography is concerned with the following facets, then it must be realised that these have been chosen to maintain the American explanation of their own culture to themselves.

- 1) areal differentiation of the earth.
- 2) methodological dualism.
- 3) theoretical dualism.
- 4) inclusion of geomorphology, or physiography into geography for land form study.
- 5) the concept of unity (Ganzheit) has dropped out.
- 6) It has been replaced by the concept of the 'whole' or specific region.
- 7) the problems concerning the 'natural region' remain.

Clearly the German notion of Ganzheit, unity by language, irrespective of land boundaries was not to be in the American book. This list is evolved throughout "The Nature of Geography", but springs from a positive choice upon Hartshorne's part, to study the region from the outset. There were similarities of political control in both Germany, through the National Socialists and in America through the capitalist purchase of the political parties, but the geography of overt control did not suit Hartshorne who had to explain subvert control through overt democracy.

1.4.8.

America's national boundaries had been set and there was a need to explain the internal structure of the Union, therefore regionalism was an attractive mode. It was associated with the unification of the German states and the Anschluss, which took place when Hartshorne was a scholar in Germany. His scholarly works include a mass of professional support which is called upon to bring weight to the conclusion that, "if we are to avoid dissipating our efforts in ever changing directions, we must evaluate the framework for geography which has been developed hitherto. Failure to do this has enabled promoters of novel ideas...to persuade groups of geographers to pursue...new and attractive concepts...which later we find little use. This appears...unnecessary when we find...that the concepts hailed as new had been tried decades earlier and were wanting."* Now it may also be suggested that because of the seemingly valid nature of this claim, then one is trapped, transcendently into accepting the conclusion that Hartshorne arrived at. Research would then focus upon the historical nature of geography. The purpose of the discipline being, "the study that seeks to provide scientific description of the earth as the world of man."* In this case the earth is the American earth and the world of man, their society as a typology. But if the exploitation of the environment and the exploitation of members of the society, are the bases of the ideology, and the object of the politicians, because these factors are externally determined, then people must resort to explanation through, exploitation of others, religion or psychology. If American geography cannot move out of the past, then it must look inwardly at itself, as must the members of its society.

1.5.1.

In Britain the Royal Geographical Society arrived as a learned body before

the formalization of geography as a discipline in Universities or properly in the schools.* As the amateur appears to deserve equal prestige with the professional in the view of the Society, this makes the nature of British Geography slightly different from other national geographies.*

The classical British geographers* appear to have read and been influenced by overseas writers. This is apparent in the connection between the work of Geddes and Le Play for instance, the links may be found in many other contributions. Geography had been an activity in the haphazard collection of an Empire for centuries. Only the sub-skills of geography were of real merit to this end; as in navigation, cartography, and the trading assets distributed amongst the natives of various continents. The need to see geography as less than a list of annexations, capes, harbours, and the dispositions of unfriendly European neighbours, did not arise until the Empire was in a state of irreversible decay. From the foundations of a society of explorers, the R.G.S. began to branch into the area of education, two aspects which it has maintained until today. The contributors to this academic geography, two of whom are used as illustrations below, all seemed to hold one idea in common. Geography should present a synthesis of ideas.

1.5.2.

Andrew Herbertson was typical of the non-graduate geographer, he wrote the first book on human geography in Britain in 1902, when he was a lecturer at Oxford. He was influenced by both Le Play and Hettner in the formulation of his geographical ideas, the primary one being; "There are no men apart from their environment."* The central conception of Herbertson's work is claimed by Dickinson to have been 'the natural region'. Yet in this claim it was being inferred that Herbertson was arguing for Regional Geography, as a natural historical forerunner of the case that Dickinson stated in his "Regional Concept". The quotations used, such as "The separation of the whole into man and his environment is a murderous act", are supportive of the case that Dickinson is making. But Herbertson from the outset of British geography required a disciplinary unity, through the unity of physical and human factors in geography. Britain could not justify the Raj through any theories of the world that would not allow an interchange of ideas, and trade between peoples and places. If the people of Britain happened to be superior, it could not be due to minor factors of language, race or climatic determinants, but just to the chance of prior civilisation,

common law, and curiosity. Therefore it is also possible to realise that the case that Herbertson is actually making is a genuine synthetic contribution to the nature of geographical ideas.

1.5.3.

These synthetic ideas from Herbertson, are examples not of his use of a regional tool to explain how geography is merely a study of humanity. They are also examples of his notion of a wholeness of the discipline across the sciences: "For purposes of investigation, it is often necessary to consider one element alone: but for full understanding of the... macro-organism, the nervous system; or the human society, a part cannot be separated from it."

"Environment is not constant, but changes, even physically...social tradition is not constant...heredity and environment are very convenient ideas for analysis. Abstract either element...and the whole cannot be understood." also "A migration of men may modify a district as well as the district may modify men." Further, "Information and even ideas can be transmitted almost instantaneously, but the movement of ideas is not dependent on cables and wireless apparatus alone. There must be a society fit to receive them as well as a society capable of producing them." These quotations are relevant to the tasks of the Empire builders and maintainers. Herbertson's ideas of the nature of geography therefore seem more deep and complex than mere regionalism; his ideas synthesize fit societies creating and disseminating ideas, which modify not only the societies themselves, but also their environs. Herbertson wished to emphasise that nowhere is there unchanging permanence and nowhere is there unrestricted change. Both society and the environment appear to be in constant flux with some macro-organism, which appears to be the earth. This earth was the hydrological balance that his generation took for granted as the reality from which geography had to be explained. An adequate explanation of the relationships between, society, the environment and the earth could not be given by dividing geographic knowledge into a bundle of subjects.

1.5.4.

Halford J. Mackinder introduced the 'new geography' into the Universities (Oxford) in 1900 at the request of the R.G.S. His prior study had been in Natural Science, History and the Law. He did not attempt to define geography in any simple or single manner. When he asked "What is geography?", he answered by defining what it was not.* He left the audience to intuit definitions as if he had pre-read Myrdal's*

"in reality there are not economic, sociological or psychological problems, but simply problems, and as a rule they are complex. The one and only type of concept that it is permissible to keep vague is the meaning of the terms such as economics, sociology or psychology, since no scientific inference can ever depend upon their definitions." Mackinder used this formula by defining those areas that appeared to be of interest to geographers, but in his view should be excluded from inclusion into geographical formulations, because they detracted from the form that geography should take. He considered that, "Geography must be a continuous argument, and the test of whether a given point is to be included or not must be this: Is it pertinent to the main line of argument?"* This argument did not explain the structure of geography, but only how the data should function. Dickinson interprets this to concern the argument for "an environment as a natural region".* 1.5.5.

Mackinder was quite clear in that he wanted none of this nomothetic - ideographic division: "We have yet to see the man who taking up the central, the geographical position, shall look equally on such parts of science and such parts of history as are pertinent to his inquiry. Knowledge is, after all, one, but the extreme specialism of the present day seems to hide the fact from a certain class of minds. The more we specialise the more room and the more necessity is there for students whose constant aim it shall be to bring out the relations of the special subjects. One of the greatest of all gaps lies between the natural sciences and the study of humanity. It is the duty of the geographer to build one bridge over the abyss which in the opinion of many is upsetting the equilibrium of our culture. Lop off either limb of geography and you maim it in its noblest part."* It would appear from this extract that to all but a certain class of minds, Mackinder was making a clear appeal that only geography had to exist as both a physical and a social science. Varenian division gave a divided subject to members of a divided profession, whereas a synthesis of the existing parts of geography could offer a bridge to understanding between the sciences. The request was to examine what constituted geographic knowledge by defining the parameters of the subject.

1.5.6.

Without detailed definition, geography is according to Mackinder central to knowledge. Thus the geographer has a duty to terminate dualisms, and is required to be an interdisciplinarian. This was an order that

few could understand, and even fewer have attempted to fulfil. There is little sense of this 'duty' in geography; in fact there is an invested interest in British geography that functions against it, which according to Michael Chisholm* exists and has been sanctified. Mackinder set limits to the boundaries of the discipline, firstly by excluding geology. He noted that; "Geomorphology as it is now developed has internal coherence and a consistent philosophy, many of our geographers... have blinded themselves to the fact that as geomorphologists, they are not at the centre but on the margin of geography." Then further, "the geologist looks at the present that he might interpret the past; the geographer looks at the past that he might interpret the present." Finally he presents the synthetic purpose of geography with, "Geography presents regions to be philosophically viewed in all their aspects interlocked."* Mackinder's regions were not the Germanic regions of language, nor the French regions of how a countryside devolved from a French speaking culture, nor the American rectangular grids of commercial returns, but the synthetic regions of great internal diversity that constituted the British Empire, based upon the commerce of Free Trade, policed by Armed Forces, and subject to Common Law. The purpose being the exchange of raw materials for home manufactures, at an industrial profit. The very diversity of the factors involved, required a geography that did not add extra complications through a division between physical and human factors. The stamp of the Raj required that there should be no micro-factors to detract from the wholeness of the enterprise. Mackinder offered to geography a centrality of place within the disciplines as a synthesis of the sciences, with some philosophical purpose. The philosophy was the justification of Empire at first appearances, but in the event, his formulation was of a meaningful geography that transcended the era of Empire. British geography had a duty to be synthetic, or otherwise only a host of non-comparative micro-studies could be offered to explain the lands and peoples at Britain's disposal. From such a set of studies few if any, generalisations could ever emerge.

1.6.1.

Part of the history of geography is an account of the discordant values that the discipline now contains, even when the terms used between nations appear to be the same. As different nations had different goals, so they required different geographies. Friedrich Ratzel had a profound

influence upon geography in Germany, France, the Americas and subsequently in Britain. His work was transmitted through various translators for various purposes. Raveneau* observed that, "Between physical geography, sometimes predominant and exclusive, and the science of man, which neglects so easily the framework in which man moves and the space in which he lives, Ratzel has taken his stand. He has strongly insisted on the necessity for a broad view of general conditions and the laws on which the distribution of man over the earth are based. His principle merit is that he reintegrated into geography the human element."

Raveneau claimed that there was a vital difference in the modes of explanation between the science of man; with general conditions; and physical geography; with laws. This claim may be seen as saying there is a qualitative difference between these two modes of science. The nature of this stand, and the qualitative differences were expanded and labelled by Windelband* when he introduced into the geographers' terminology the notions of nomothetic and ideographic. Dualisms have a functional meaning when they expound and explain, but dualisms that are divisive and discordant contribute only to circularity of argument and not advances in understanding, as in Raveneau's claim that Ratzel's assertions for a synthetic geography, were only false claims to enhance the dualism between the two working geographical sciences.

156.2.

Each nation took from Varenus, and other theoreticians, what each nation required to fit its own national view of the world. Therefore a duality developed within geography after Varenus accepted the Copernican paradigm, because of the wish by geographers to search for law-like relationships in the forms of explanations, for that material that seemed to fit to this form. For material that did not suit law-like explanations, geographers resorted to descriptions. National geographies contributed their own cultural values, and many geographers accepted these cross-cultural terms through translation or mistranslation, without being aware that political values were a paramount contribution from other nations. The German search for linguistic unity could only be achieved by force, the assembly of force required detailed preparation, and methodological detail. The French contribution to the world was the bourgeois revolution, the politics of which required receptive regions with an allegiance to central authority. The American rush for exploitation of physical and human resources required a complete division between the physical world and those who were allowed to inhabit it.

Their regions were those set in units of capital returns. The British contribution came late but had an international flavour of liberal trade between many countries, but the ideas of synthesis foundered upon the liberal notions that preceeded them.

CHAPTER TWO: MODERN GEOGRAPHY - A PLURALITY OF ORTHODOXIES.

Give us this day our daily bread.

Matthew 6 v.11.

2.1.1.

The present paradigm that geography presents is an eclectic amalgamation of the forms of presentation that have been arrived at from the classical forms and contributions mentioned in the previous sections. Three models emerge which are to be used to show the legacy of Varenian tensions that have been inherited from the acceptance of the Copernican paradigm. Three examples are considered here; the first being "The Peninsular" which is given as a standard work of acceptable geography in 1940. As scientific geography, it poses the question "Is this the neutral truth?" "The Peninsular" illustrates the British tradition of eclectic gathering, and also highlights the dangers. Written as a physical and human treatise on Spain the book had to take upon itself clear political purposes, those concerned with the military invasion of Spain and Portugal. The second example, "The Personality of Ulster" is not presented as regional description as is "The Peninsular", but as a man / environment / man essay in which determinism is the central underlying value. This determinism is that which would establish sciences as laws. The third example is "Innovation diffusion..." being included as a typical essay in quantification, where description has been replaced by determinism of a scientific form, and the scientific conclusions have been reduced to numbers. These seem to represent the three modes of geographical theoretical form that are presently utilized as * approaches to understanding within the discipline. The approaches are set in degrees of certainty of explanatory power, that is description, persuasion, and proof positive.

2.1.2.

"Spain and Portugal: the Peninsular," was published by the Naval Intelligence Division, coded B.R. 502 (Restricted) 1940. The authors were K.Mason, E.W.Gilbert, and R.P.Beckinsale*. "The purpose of the book is primarily naval*, but countries must be treated as wholes not exclusively as coastal zones," is given as the intention of the authors who used mainly translated texts. Thus "The most complete account of Portugal being 'Die Portuguesischen Landschaften', by H.Lautensach, 1937". M.Sorre's 'Espagne-Portugal', Tome VII of Geographie Universelle, 1934; O.Maull's 'Landerkunde von Sudenropa,' 1929; Baedeker's 'Spain-Portugal' 1913, are given as contemporary examples of reference texts, but "older English books on the Peninsular should not be neglected as they provide information about the life and spirit of the people that is still

accurate," giving R.Ford, 1846 and G.Borrow 1843, as examples. At such a short time after the Spanish Civil War, this was the basis of a military document upon which lives might well depend.

2.1.3.

"The Peninsular" is divided into an introduction and seven chapters and appendices. The introduction typifies geographic usage of 1939 with an outline of the area and population; relief; coasts; climate; rivers; regionalism (viz.ethnic & linguistic); history; maps, and the regional divisions thus:- the mountains of the N. & N.E.: the central meseta: the barrier ranges of the S. & E.; the Ebro trough; the plain of Andalusia; Catalonia, and The Balearic Islands. The second chapter gives a physical and geological description, then a general description, excluding topography, but including erosion. A map on page 10 divides the peninsular into regions based upon von Humbolt's method of placing boundaries along major watersheds.

2.1.4.

Chapter three offers regional descriptions mainly of the terrain and communications, these being mainly railway lines. A Bartholomew 1:1,600,000 motoring map is included, but the authors warn that the Spaniards accounts of their bridges and roads should not be believed. The coasts of the Iberian Peninsular are included in this chapter, illustrated with block diagrams of estuaries and accessible coastline, with the adjunct that "Spain is continental in character, rather than oceanic, whereas Portugal is the reverse."

The climate of the Peninsular is dealt with in detail in chapter four, but prefaced with "few reliable statistics are available for Spain."

2.1.5.

Chapter five characterizes the vegetation and then regionalizes the nature of land utilisation. Chapter six considers diseases and hygiene, with "the imperfection of the records is shown..." then on page 162 the nature of the treatise is first mentioned in terms of war with:- "specific details are difficult to obtain, but most notifiable diseases are present, even if the hook-worm is not likely to be of military significance."* Chapter seven deals with the history of the Peninsular to 1815. Spain is characterized as anti-British; Portugal as pro-British, but in the event of war, Spain could be split into its historic regions. Four per cent of the text is devoted to the battles of the Napoleonic Wars, and the chapter summed up with, "The characteristic features of Spanish history continued to be poverty, civil war and

regional separatism,"

2.1.6.

The final chapter discusses the races of the Peninsular and suggests that the languages would form a basis for the division of the people into these natural and cultural groups; Portuguese, Basque, Castillian, Catalan, Gallego, Balear, Leonese and Andalusian. The unity of religion would offer links between these provinces. The volume concludes with aspects of cultural activities; meteorological tables, wind, sea and swell tables and phonetic lists, followed by the bibliography. This contribution by eminent geographers is a standard work of the time and would still form the basis of a regional study for sixth form work in schools. But their knowledge of geography is limited in both information and statistics. Their knowledge of war is derived from historical accounts from Wellington's encounters. Their political assumptions of divide and rule were derived from their German references, a process that failed the Germans so badly in their conquests of Europe. Whilst their cultural assumptions of Basque and Catalanian provinces might well have caused some anxiety in France, whose territory was thus equally open to cross-frontier divisions.

2.1.7.

The Varenian divisions are clearly apparent. General geography offers a pattern through scientific truths giving a method by which one may divide up the physical nature of the peninsular. This is done in the first five chapters, ranging through the geology of the area and the impact of nature upon this structure is then regionalised and described in the special mode that Varenius has suggested. The assumption that the text should be relevant to invasion, is not questioned by the authors, and the political implications of spilling over frontiers, are not considered, but the British had for too long been in the habit of drawing frontiers suitable to themselves. References were drawn from German notions of 'Landschaft' equally with French notions of Vidalienne regionalism. The mixture was successful in diverting the authors from the primary task in hand, which was to offer material of military use. The division of the peninsular according to von Humboldt, had little bearing upon the use of terrain that had beset the participants in the recent Spanish Civil War, the nature and extent of their conflicts were missing from the text.

2.1.8.

Just as the British notion of Empire underlies the geographers'

attitudes towards the invasion of the Peninsular, so it intrudes into the second example. This is the address given by Professor E.E.Evans in 1970 entitled "The Personality of Ulster"*. Whereas in "The Peninsular" eclecticism brought in a difficult mix of contrary values as a central theme, the Ulster paper is an example of determinism. The case put forward argues that the occupation of the landscape is determined by regional groups which relate to different cultural values. It is by nature a transcendental argument, in that if one accepts the premiss, one should agree with the conclusions. The paper represents an interesting form of geography, because in a subtle way the cases cited appear to lead to this singular logical conclusion; "in view of the recent civil disturbances," the historico - geographical solution is to repartition Ulster along the lines of the river Bann, using the river as a demarcation between the two "religious" factions of the society. Prof. Evans traces the history of the term 'Personality' to Michelet, via Cyril Fox* and Vidal de la Blache.* He points out that the term refers to the "individuality of a region resulting from the interaction of men upon environment through time." He continues, "We seek to understand, then, to what extent the traditions and modes of living of Ulstermen have been fashioned in and by the land. There is no denying the strength of that personality, but the internal divisions...show that we have to deal with a split personality. In anthropological terms, there are two endogamous communities, nursing different historical myths."

2.1.9.

In note five *Prof. Evans concludes the values that have been drawn from the determinants of the environment, with these reasons:- "The lower Bann valley too, is obstructed by a northwards extension of the main drumlin belt of south Ulster. If one had to choose the land form most characteristic of Protestant Ulster, it would be the drumlin country of east and south Ulster, and parts of Donegal, giving a 'closed' landscape of isolated hillocks and restricted horizons."*

2.1.10.

The abstract of this paper is mainly thus:* - "Northern Ireland...involved the partition of the historic province of Ulster. The Protestant Unionists...in six of the nine counties were faced with a hostile one-third Catholic minority. These political events have obscured the common heritage of the province. The personality of Ulster derives in part from its proximity to Scotland, with which it shares a Caledonian

structure and extensive igneous activity. Successive incoming peoples and cultures found a natural frontier along the edge of the mountains in a broad belt of drumlins running westward from Dundalk. Internally the province is a complex of hill masses, and its only lowland is interrupted by Lough Neagh and the River Bann. Diverse groups of people have been able to survive in diverse habitats, e.g. east and west of the River Bann. From Neolithic people and times there had been both cultural distinctiveness and diversity, and cultural contact has brought initiative, but also tensions, released in strife or relieved by emigration. Attitudes have always been hard and uncompromising. Ulster's resistance to the rest of Ireland in early Celtic times was the most productive fact in Gaelic literature...despite massive investment in new industries...their location has perpetuated the contrast between the more prosperous east and the more Catholic country "west of the Bann", where recent civil disturbances originated."

2.1.11

The political nature of geography is made absolutely clear in "The Personality of Ulster". It is derived from the French tradition of geographical enquiry, as the references make plain. It is a micro study utilising the ideas - political ideas - that the French gave to geography from their philosophical tradition. In this place where the British have their only experience of a land frontier, there has to be a justification for drawing a physical line upon the map. But the line was never agreed upon, nor were political adjustments of the French order made within that boundary. The French tradition is to wipe out everything non-French within their frontiers, be those things languages like Flemish, Catalan, Savoyard, or Norman, and then to justify the diverse cultures as ideothemes of French regionalism. The British tried to synthesize the cultures that existed in Ulster. The attempt has failed. The solution given by Professor Evans - partition - was derived from the physical division of the landscape of Ulster. If cultures are so absolutely determined by environmental factors in this manner then this is a total reduction of geography in both physical and human factors to a nomothetic form. The causes of the political situation in Ulster are therefore a synthesis of all the chosen data that the geographer can muster for his case, even if one doubts the translation of the meaning* of the French ideas as a justification for the conclusion that this paper sets out to show. An Irish Republican might seek other reasons and causes for the perpetuation of the contrast

between the more prosperous east of Ulster, and the poverty of the more Catholic country, "west of the Bann."

2.1.12.

The tensions of the Varenian separation arise differently in the "Ulster" paper. The generalisations of the physical nature of the region, becomes causal in the subsequent human conditions. This is an example of physical determinism given to examine a political situation. In the previous chapter it was attempted to show that present day contributions to geography stem from nation alist geographies of the immediate past. Explanation in each case was derived from each nations need to show how their world appeared to them, and to how they could explain their world to those being socialised into their own cultures. The two papers above show how British geographers come to terms with problems of descriptions, continue the pattern of inculcation of culture, and still arrive at political conclusions. Geographers have long been beset by the difficulties of a discipline having descriptive characteristics. These become obvious in the work of Richard Hartshorne, in his footnotes throughout "The Nature of Geography" as he struggled to put meaningful translations across from German into English. The same is true of Robert Dickinson in his 'Who's Who?' of geography. Even in his "Regional Concept" - the contribution to geography by the Anglo-Americans, his index is splattered with German and French words. Scientific attributes are difficult to apply to regions from a multi-lingual base; the words apparently translate, but do the cultural concepts transpose?

2.2.1.

Consider the simple and universal notion of "give us this day our daily bread", in relation to the cultural understanding of the nations previously referred to. Does the white hard grain cuboid loaf of southern England bear any relationship to the tacky over-sugared article of the Americas? How do these articles compare to the Volkornbrot of Westphalia? And what do these three forms resemble when set against that short life product du pain of the French Boulangerie? In our simplest and most staple items we seem worlds apart: is it then not highly presumptive to assume that any word translation of notions as complex as national notions of geography, could accurately convey the transposition of cultural meanings?

2.2.2.

The orthodoxy of present geography in Britain appears to be represented by two modes, the traditional, as in 'The Peninsular' and 'Ulster' and the quantificatory, as in 'Innovation diffusion; which is discussed below. Both are parts of the same paradigm that stems from Varenius. Both derive the logic of their existence from foreign contributions. The 'need' for academic geography arrived in Britain long after its arrival in France, Germany and the Americas, even long after* the establishment of a Royal Geographical Society.

From the outset academic geography, as Mackinder suggested, should occupy a central place within the academic disciplines, should define its parameters, and should synthesize all relevant, available knowledge. The object of this exercise being to bridge the natural and human sciences. The outcome has been that geographers have accepted that the dichotomy should be extended through funding of research from divisive resource centres. That the parameters of the discipline should be whittled away, by the establishment of sub-disciplines from geography as sciences within their own right, such as meteorology.. Whilst at the same time geographers have gone beyond their bounds into the area of psychology.

2.2.3.

The establishing of the Earth Sciences from the mass of geographic knowledge was to follow the quest for science. It seemed obvious that in order to be scientific, the practitioner had to eliminate all values from the work undertaken. Especially in the post second world war years, this quest for a value-free science became almost a fetish, equating the greater the distance from the human subject to the greater the purity of the scientific enterprise. However this in itself was a value judgement. But for geographers involved in human geography, the knowledge of psychology became very tempting. If one had to deal with the inconsistencies of the human condition, then the science of psychology offered a guide by which one might be able to judge that one's own judgements were not deviating from the nature of truth. The opposite ends of the scientific scale appeared to give factors of control to geographers either in avoiding values or through analysing their own. But these judgements and decisions were value laden and there was an undercover infiltration of values into the very decisions to avoid a value biased discipline. The acceptance that the theories used in geography were value free, or value controlled allowed other values to be brought into the

discipline including those of beliefs, the correct nature of societies and political choices.

2.2.4.

Dickinson and Hartshorne may be read as two chroniclers *who have seriously attempted to bring into English their interpretations of the semantic character of geographic notions from other cultures. Robert Dickinson has written biographies of the main contributors to geography over the past two centuries. He has steadfastly remained an exponent of the necessity of regionalism in geographic explanation, and has thus continued in the Varenian tradition, by rooting the nature of knowledge in geography to the acceptance of the Copernican paradigm. For him, geography has not been given any new paradigmatic base since the division into general and special geography. Richard Hartshorne spent a studentship in Germany, translating the German contribution to geography for the benefit of American geographers. His influence was profound. In America, geography became a humanistic discipline and physical geography fell by the wayside. Human geography also became systematic, compartmental and specialized, because Hartshorne overlooked both the French and British contributions to the discipline. Consequently American geography lacks the sweep of composite regional study, it lacks the notions proposed by Vidal de la Blache, and mainly ignores the contribution of the man-made landscape. But both of these authors explain, demonstrate and justify their concepts of the region. For instance, Dickinson states,*

"The true geographer is a regionalist, a categorical statement, that will undoubtedly raise a storm of opposition, but this is the main lesson derived from a historical evaluation. He searches for interpretations of regional entities at any scale. He may select.....at the outset an arbitrary area for his own convenience - of access or assignment. Within this he searches for regional associations as a 'terminus ad quem; not an origo a qua'. He may examine separate associations, say geomorphology or land use, or urbanism. But his final and guiding question is regional localization. This involves the spatial cohesion of similar forms or functional interconnections, resolved into cores of association, limits and fluctuations. These find their medium in the network of nodal centres and routes and in uniform surface areas of land cover. This circumspection applies to all of the physical, biotic and human aspects.

These conclusions are derived from the ideas, procedures and achievements of the makers of modern geography in both western Europe and America."

2.2.5.

In the same vein Hartshorne* thought that "The greatest differences in character within geography are found between the two major ways of organising geographic knowledge - systematic geography and regional geography - each of which includes its appropriate part of all the special fields. In addition to the difference in form of organisation in the two parts, there is a radical difference in the extent to which knowledge may be expressed in universals, whether generic concepts or principles of relationships.

Systematic geography is organised in terms of particular phenomena of general geographic significance, each of which is studied in terms of relations of its areal differentiation to that of the others. Its descriptive form is therefore similar to that of the systematic sciences....No more than in the systematic sciences, however can systematic geography hope to express all its knowledge in terms of universals; much must be expressed and studied as unique."

Here Hartshorne acknowledges the Varenian division, but in order to be scientific, begins to qualify his explanation.

2.2.6.

"While there are no logical limitations to the development of generic concepts and principles in systematic geography, the nature of the phenomena and the relations between them that are studied in geography present many difficulties preventing the establishment of precise principles....Nevertheless the degree of completeness, accuracy and certainty, both of the principles established and of the facts known in regard to any particular situation, seldom permit definite predictions in geography.....Regional geography organises the knowledge of all interrelated forms of areal differentiation in individual units of area, which it must organise into a system of division and subdivision of the total earth surface. Its form of description involves two steps...the findings of regional geography, through they include interpretations of details, are in large part descriptive. The discovery, analysis and synthesis of the unique is not to be dismissed as 'mere description': on the contrary, it represents an essential function of science... To know and understand fully the character of the unique is to know completely: no universals need be evolved, other than the general law of

geography that all its areas are unique...The ultimate purpose of geography, the study of the areal differentiation of the world, is most clearly expressed in regional geography; only by constantly maintaining its relation to regional geography can systematic geography hold to the purpose of geography and not disappear into other sciences." 2.2.7.

The previous statement is concluded as a credo by Hartshorne following a prior 450 closely argued pages. Almost forty years later, after carefully researching the same basic areas of the discipline, Dickinson has arrived at the same tentative conclusion. But whereas Dickinson declines to project a future course for geography, Hartshorne had been bold enough to state, "If American geography is approaching that major degree of common understanding on the fundamental nature of its field that was attained in Germany two or three decades earlier, and likewise in French geography, we may hope that the immediate future in this country will show a period of correspondingly rich production along a wide common front."*

This position taken by Hartshorne appears to echo superficially that of Varenius; the division of the discipline into ideographic and nomothetic attributes, but as interdependent parts, together with a stress upon the importance of a working methodology drawn from the themes of regions. Dickinson would seem to follow Hartshorne's view, indeed he dedicates his book to Hartshorne*, but with some reservations. He points out that Hartshorne had grossly underrated the study of the man-made landscape; the work of J. Brunhes and O. Schluter; that he completely ignores the contribution of Vidal de la Blache, and thus the contribution to geographic thought by the French;...." as a consequence, his (Hartshorne's) emphasis lies on the geographic distribution of associated groups of phenomena, and he fails to confront his readers with the problems and procedures of composite regional study." Because of this "Hartshorne sowed the seeds of systematic, compartmental, specialization, which has been dominant in Britain and America over the past generation, and the true challenge of the regional concept has been misunderstood and neglected."

2.2.8.

There is therefore a vital difference of opinion between Hartshorne's and Dickinson's views as to what constitutes the orthodox nature of geographic theory, and it would seem that this is the result of Hartshorne having not adequately studied the French contribution to geography

and through his having chosen a limited form of landscape understanding, which generated introverted studies dependent upon a limited realization of the utility of regional methods. No one can fairly claim that Dickinson has not researched the work of the contributors to geographic thought. His regional interest was of course attacked by the quantifiers, an attack that seemed justified in their terms, because of the introvert nature of the studies of regions, and because of the difficulties involved in generating statistics from an unique item. Further to this was the difficulty of values implicit in regional studies, Hartshorne had suggested that the methodology of regional studies was intended to allow geography to "proceed upon a wide and common front." Anything as vague as this was certainly not subjectable to statistical treatment, therefore could not be accepted as quantifiable geographic data.

But Hartshorne's 'The Nature of Geography' was intended as an introductory summary of the "development as a modern discipline (which) crystallized in Europe, and primarily in Germany, during the period 1750 to 1900", for American geographers, through an "examination of the development of concepts concerning geography, and the substantive work in it.." *Indeed his reference material constitutes about 70% of works in German, 4% in British English, and only 2% in French, which seems to indicate that his main intention was to take Germanic constructions to the Americas; if numbers have any meaning.

2.2.9.

The differences of opinion between Hartshorne and Dickinson emphasis a continual impact of national schools of geography. Hartshorne's claim that "Regionalism comes from German geography," is denied by Dickinson's belief that regionalism comes from everywhere. Knowledge had to be taken to the Americas and adapted to the expansion of statehoods in order to justify the rape of their natural resources. The Germanic tradition gave scholarly credance to these internal activities.

Dickinson remained steadfast to the tradition of attempting to synthesize all geographic knowledge, even when he worked in America. This reflected the tradition of his British background, where he expected a geography to explain the eclectic amalgamation of a haphazard Empire. Hartshorne's search was for respectability within his discipline. The ideomatic nature of his material was not contradictory to the manner in which America experienced growth and expansion, because each new interface with natural reality was both unique and yet fundamental to those

who explored and settled, thus creating the base for American human geography. Dickinson's regionalism seemed to be in a much more precarious position, because eclecticism needed re-examining, because reflection upon a passing Empire did not offer a form of explanation that lead to law-like theories. Each disputant therefore put forward theoretical constructs concerning regionalism, that they considered justified their national geographies.

2.2.10.

The attendant difficulties of bringing a German geography into English, which Hartshorne attempted, and those that Dickinson would bring with the French works are more than the sum of the mere translations of terms. German is regarded as a language of logic, French as one of rhetoric and English as the language of empiricism. English has an archaic and simpliflicated transatlantic form that was used to integrate various European mother tongues, in order to simplify immigrant communications. In order to arrive at a term that is mutually agreeable between two of these languages that involves even a simple, singular image from the world, there must firstly be an agreement of an interpretation of an agreed perceptual experience. There must then be a mutuality of thought, followed by an agreement in language. * The logical process is from percept to concept, and from concept to term. A 'rational' examination of some of the problems involved in this mutuality has been put forward by David Harvey *in 'Explanation in Geography'. Harvey is one of the post second world war phenomena in geography. His contribution to the discipline is a starting point for the writing of this paper. It has been said of him that he made two significant contributions to geography. Firstly that "only can the process of advance in geographical understanding be logical and reasonable by the combination of scientific methodology and the traditional objectives in geography." And secondly "theory can not stem from the artificial separation of philosophy from methodology."*

2.3.1.

Whatever one's definition of geography may be, there seems to be little doubt that geographers have always sought ways of explaining reality within the limits that their societies imposed upon them. Harvey points out * "The transformation from percepts to works requires, therefore, that we understand in some way the relationship between them, since only through such understanding are we able to discuss the relationship

between man himself and the reality he is seeking to know," However well the relationship between percept, concept and term may appear to be understood and rationalised, the transitions are made to include our objective and subjective values, which are coloured by both class-consciousness and national feelings. Most geographers, from the time of Varenus' division have appeared intuitively to avoid the difficulties presented by attempting to make generalised law like statements concerning their perceptions of the world, in order to establish claims to objectivity, but have concentrated upon describing what they claim to have seen.

2.3.2.

Although geographers have at their disposal adequate terms with which to describe their worlds, and have adequate concepts with which to organise their terms, few, if any have the perceptual range and depth of sense, with which to come to terms with the whole of reality. Standard practise has been to research an area that was adjacent to their lives, or within reach of their special interests, or if they were fortunate with their funding, remote but attainable, and then to publish their findings, which would then become available knowledge. Geographers select their chosen topics in the way that they do because of the values that they hold. They then try to shed their obvious values in the name of science; but their values, as in the cases of Dickinson and Hartshorne stay with them. This is the case in modern geographical texts. A search for values soon makes them obvious, as was shown in "The Peninsular" and "Ulster" papers.

2.3.3.

There are difficulties concerning our views of the 'relevant other' in all human transactions, that may be seen as rational by those involved in a transaction, but are distinctly non-rational to an observer. There is a massive literature concerned with perception; the majority of the inventions of civilisations have been concerned with extending the range of the senses of the human individual. The early navigators were seeking spices to improve their food, with lenses to extend their vision, and cannon to extend their defence. The arts try to extend the challenge of understanding to the senses. Yet in our percepts we are socialised and prejudiced by values. I do not consider that black is beautiful,' I do not take to singers with two chord guitars,' I prefer the touch of cotton to nylon as a fabric,' and the taste of celery is revolting, whilst the noisesome hamburger should never have passed

through immigration. These values are subjective, but they colour my perceptions of reality, even when I realise that others have values of a different character. Yet all these values arise from personal, not nationalistic attributes.

2.3.4.

My nationalistic values *also colour my prejudices, yet here there is a difficulty of patriality, I see myself as English, yet my passport labels me as a resident of the United Kingdom, others might term me as British; therefore there is a trilogy of percepts of varying objectivity concerning my status as a citizen, and they may all be correct. My views of others of other nationality are also coloured by my experiences of how we seem to experience each others definitions of reality. These subjectivities are present in all our perceptions, whether we are prepared to acknowledge them or not. Also I have been socialized or educated into certain values, some of which are simple to discern such as "The only good German is.....The French infantrymen are the best in the world, if only....and here come the Yanks, years late as usual!" But the centrality of Greenwich, and the red on the old political maps, seem to be a little more insidious. But seemingly natural is the importance of the English language as a vehicle of international communication. The views of the nations that follows must therefore be judged upon these prejudices that exist. The time scale concerns present concepts that concern geography and may be assumed to stem from the -middle of the eighteenth century to the middle twentieth century. In the nations considered, excepting Germany (which existed in reality only from 1938 to 1944) there had been civil wars, an overthrow of monarchy, or some form of class domination, and a rise to control by the middle classes.

When geographers wrote geographies that touched upon politics, values, prejudices and limits of language, then these geographies had to be acceptable to their political masters who were defining the parameters of the acceptable definitions of the reality of their world, if the material was to be accepted. Within these determinants, the geographers could choose.*

2.3.5.

During the first half of the twentieth century geographers argued upon the definition of a region, Only later did they concern themselves with whether regional studies were a worth while occupation. According to Haggett *there were five themes in search of theories: areal

differentiation: landscape; man-environment; spatial distribution and geometric themes to be fitted to the regional occupation. These themes are not mutually exclusive, and vary from strict attempts to be nomothetic to pure relapse into descriptive art forms. For as Burton points out* "The moment that a geographer begins to describe an area, he becomes selective, (for it is not possible to describe everything), and in the very act of selection demonstrates a conscious or unconscious theory or hypothesis concerning what is significant."

The thematic basis of each regional description lead to or derived from some theoretical notions, or as Haggett suggested, the themes were in search of theories. In science theories require statements from which theorems may be derived. In order to become empirical in status, these statements need be seen as observable classes of events or explained as theoretical concepts, from which the behaviour of events may be derived. Harvey *suggests that the concepts used by geographers may be termed either derivative or indigenous.

2.3.6.

Derivative concepts appear to be based upon concepts commonly in use in disciplines other than geography, such as economics, psychology, physics, chemistry and sociology. Examples of these are the use of von Thunen's work, phenomenological geographies, hydrology, ecology in agriculture and interpretations of social space.*

Geographic concepts of an indigenous character seem to be of three types, those concerned with temporal processes, which, because geography is usually classed as a spatial discipline, then become derivatives from some form of mathematics. Secondly those concepts concerning spatial relationships, especially in their geographic - geometrical form, as so brilliantly examined by Bunge*, and thirdly the classificatory concept. Of this third indigenous conceptual form Harvey writes* "Some concepts in geography play an ambiguous role. They sometimes play an explanatory role, but on other occasions they may be interpreted as procedural rules for conducting geographical research. For example, the region has sometimes been accorded the status of a theoretical entity... which could not be precisely observed but whose existence could be inferred from its effects. The areal differentiation of the earth's surface could thus be explained with reference to this theoretical object. Later writers...came to regard it as an essential mental construct for the organisation of geographic data," (viz. Hartshornel. (Others) "have since indicated that the concept...is nothing more than

a special form of classification. The double role which the concept of the region has played in the history of geography can be confusing.. the danger of tautological argument is evident." And a tautology is only a vain attempt to give a value judgement scientific status.

2.4.1.

During the late 1948's and early 1950's there was genuine dissatisfaction in the social sciences with the ideographic character of much of the available theory. This spilled into geography, and a new generation of geographers, who had seen the rapid results of scientific activity during wartime, wished to bring these value free notions into geography. The question that they put was "Why is orthodox geography unsatisfactory?" If one considers 'The Peninsular' (2.1.2.) as an orthodox geographical text then it seemed unsatisfactory because of its British particularism, it had not been researched at first hand, it was merely descriptive, it was obsessively value laden, the inferiority of the Spaniard, and jingoism towards the Portuguese was patently ideological and the generalizability of this form of travel guide could not be extended, except in form to other parts of the world. If all these arbitrary values could be eliminated and the sum total of factual information could be reduced to formulae and expressed in quantified terms, then there would be a whole new form of understanding to be derived from the world through geography.

2.4.2.

Two geographies appeared, the orthodoxy as illustrated by "The Peninsular" and a quantificatory "new" geography. These two labels 'orthodox' and 'quantificatory' require unravelling from the outset. Ian Burton writing "The quantitative revolution and theoretical geography", claimed that the revolution into quantification was over in 1963 and that geography had henceforth a new paradigmatic basis. *The attempt was to define science and a science of geography. It seemed obvious to the 'new' geographers that as the nomothetic element in geography had in the past produced results in physical geography of a scientific type, as Varenus had predicted; then all geography could be scientific. Their aim was to model the data to predict, as in physical science. The conceptions of their orthodox predecessors were too narrow to be termed scientific. Hartshorne's science, seemed to be a mixture of methods equated with meritorious academic description. Dickinson's claims for scientific geography excluded nomothetic regionalism. But

it seemed clear that in order to know what causes what to happen, one needs laws. Regions had causes, they had dimensions, and their quantities could be enumerated, therefore the regions were open to quantification. An idealized - typification of this application is given in the following section of this chapter.

2.4.3.

The quantitative revolution was derived from a laudatory but false assumption, which has created problems of a similar nature in sociology. As Gorman points out, * "While our ability to explain natural phenomena has grown dramatically, social scientists find themselves without any universally valid generalisations to facilitate explanation, prediction and control...natural catastrophes are explained in terms of...laws, and at least partially controlled...social catastrophes and crises seem immune to either scientific explanation or human manipulation."

There are limits to what we can expect of social science in the fields of explanation, prediction and control; yet the quantifiers assumed that social facts were as amenable to scientific laws as were the facts of the natural sciences.

The quantifiers assumed that in their new-paradigmatic stage, formulae would produce meaningful spatial relationships of the facts of the social sciences. Or as Chorley & Haggett claimed, "Geography, coming late to the paradigm race, has the compensating advantage that it can study at leisure the 'take'off' paradigms of the other sciences."*

2.4.4.

A basic logic for the acceptance of quantification is offered by Harvey. *Firstly he posits Kuhn's interpretation of the notion of a paradigm as "universally recognised scientific achievements that for a time provide model problems and solutions to a community of practitioners." Hence Whitehand's paper has been given as an example of this in a prior section. From this one may infer that explanation is both process and an activity, from which the activity of an investigator (geographer) is to judge whether the explanations that he is given, or that he is giving, are reasonable and satisfying.

'Normal science' is characterised by the activity of 'puzzle-solving' or seeking for solutions within a generally accepted set of rules and conventions. These rules are referents from the laws of the scientific activity, but this whole activity may be interrupted by a 'scientific revolution! '. In which case new laws must be generated through new rules and conventions, in order to address scientific as-

activities towards solving new puzzles. Such a revolution is a response to a crisis generated by more problems arising than the rules of the prevailing paradigm can apparently offer solutions for. Secondly Harvey considers at length the nature of laws and their possible derivatives in geography. After sadly reflecting that, "The failure to achieve a hypothetico-deductive unification of geographic principles - or to postulate such a structure - has serious implications," he lists forms of explanation that could be viable for methodological and empirical work. These he details as cognitive description, morphometric analysis, cause and effect analysis, temporal modes of explanation, functional and ecological analysis, and systems analysis. These forms are virtually identical to the forms of scientific explanation suggested by Nagel in "The Structure of Science" that are considered to be slightly inferior to the hypothetico-deductive model.

2.4.5.

From these model forms, Harvey suggests that six forms of question emerge.

- 1). How may the phenomena being studied be ordered and grouped?
- 2). How are the phenomena organised in terms of their spatial structure and form?
- 3). How were the phenomena caused?
- 4). How did the phenomena originate and develop?
- 5). How do particular phenomena relate to and interact with phenomena in general?
- 6). How are phenomena organised as coherent wholes?

further, "From these questions objectives and logical form converge to determine the nature of geographic explanation."

Thirdly Harvey *makes the following statements: "There is no reason in principle why laws should not serve to explain geographical phenomena, or theories of considerable explanatory power be constructed. Explanations which conform to the rules of the scientific explanation as generally conceived of can, in principle be offered. This is our central conclusion."

2.4.6.

Quantification stems directly from the foundations of Varenus' general geography, with theoretical and empirical inputs from von Thunen, von Richtofen, Weber, Le Play, Christaller and Losch. Many of these ideas underlie W. Bunge's "Theoretical Geography" *, but whereas the former contributors were firstly concerned with economics, and secondly with

location; Bunge attempted to show that the geometric structures of location mainly influence the economics of space; "All human life takes place in space, where it expresses itself in terms of geometric figures, such as straight lines, triangles, squares, rectangles, hexagons, etc.* These abstract models must then be confronted with reality of an actual landscape. Deviations from the model are than caused * by natural elements occurring in real space, such as mountains, rivers etc., or by historic development or by man's lack of judgement."* Concerning the amalgamation of physical and human geography, quantification; or theoretical geography as Bunge terms it; overcomes the difficulty by "assuming that geography is the science of locations with a predictive (theoretical) arm, and a classificatory (regional) arm. (Based) upon the recognition that regional geography is simply classificatory science with the emphasis on the word science."* But does one create a science by merely labelling something as such?

2.4.7.

The problematic idea in dispute by the quantifiers is Windelband's ideographic and nomothetic nature of a non-synthesis. If one reverses the form of Harvey's argument, then the following is apparent; If laws are established in geography, and there are no good reasons why this should not be so, then, they may be drawn from many forms of explanation, which having been given by a philosopher of science, must have an aura of science about them, these 'accepted' forms then offer a revolutionary paradigm for geographers within which the process of 'puzzle-solving' must take a scientific form; that form being derived from quantitative techniques. When the whole of geography falls under the nomothetic umbrella, then the revolutionary paradigm has been effective. The discarded paradigm, would have been ideographic geography, as characterised by the Naval text upon the Peninsular. In general it was Harvey writing in "Explanation in Geography" who most clearly summarized these aims.

2.4.8.

A resume of the needs, progress and outcome of the quantitative revolution was given by Ian Burton in 1963.* The aim was clear; If geography were to be a science, it must be derived from theory, and theory is derived from maths; "It follows that any branch of geography claiming to be scientific has need for the development of theory, and any branch of geography that has need for theory, has need for quantitative techniques."* He continued, "Dissatisfaction with ideographic geography lies at the root of the quantitative revolution. The development of

theoretical, model-building geography is likely to be the major consequence of the revolution. Theory provides the sieve through which myriads of facts are sorted, without it the facts remain a meaningless jumble. Theory provides the measure against which exceptional and unusual events can be recognized. In a world without theory there are no exceptions; every thing is unique. The quantification of theory, the use of mathematics to express relationships, can be supported on two main grounds... it is more rigorous,...it is a considerable aid to the avoidance of self-deception."*

2.4.9.

It might appear that Burton merely reiterates the difficulties seen by Varenus in 1624, "In special geography, features should be explained in terms of general laws, so as to make local geography logical and intelligible." But Burton has two further and major problems to face; the first concerns the 'real world' and the second is to generate facts from values. Varenus changed the paradigm in order to explore the real world, and this exploration was his value. Burton's world had already been explored and his choice of quantifying was the self deception of a value judgement. This he expands,"...description is an essential part of the scientific method. In examining the real world, our first task is to describe what we have seen, and to calssify our observations into meaningful groups...The moment that a geographer begins to describe an area, he becomes selective...an act (which)... demonstrates a conscious or unconscious theory or hypothesis concerning what is significant."* The selection of observations from the hypothesis then establish the nature of the theory, even though they seem to be derived from cultural, socialized values; because "to specify the presence or absence of an attribute or quality is merely to begin the process of measurement."* Finally Burton notes that "the contemporary trends in science are that they are probabilistic. One may hazard the assertion that every serious study is a study of the chance mechanism behind some phenomena."*

2.4.10.

In order to give the new order respectibility, Burton asserts *that, "what is philosophically distinctive about contemporary science is its disinterest in dubious dichotomies or disabling dilemmas." And then proceeds to justify the assertion of "an intellectual revolution is over," by reference to the support of Hartshorne, whom he claims qualified quantification as "conventional wisdom"* with this statement,

"to raise... thinking to the level of scientific knowing, it is necessary to establish generic concepts that can be applied with the maximum degree of objectivity and accuracy and to determine correlations of phenomena with the maximum degree of certainty. Both purposes can best be accomplished if the phenomena can be fully and correctly described by quantitative measurements and these can be subjected to statistical comparisons through the logic of mathematics."

2.4.11.

Chapter Eight of Bunge's "Theoretical Geography" develops the notion of a "science of geography" and its "subject matter" to the point where "Patterns, geometrical, concrete spatial patterns are the dual of motions, literal movements over the surface of the earth"*. This evident dynamic relates directly back to; "Agriculture, irrigation, mineral exploitation, industry, and settlements constitute the static elements of geography, whereas trade and commerce make up its dynamic elements." Bunge believed that the statics and dynamics of this new geography would educate "seventy per cent of American adults who cannot read maps, (who) remain geographic illiterates and grope their way through the spatial experience of life in major disorientation." Because this new geography, "emerging as the science of locations, seeks to predict locations where before there was contentment with simply describing and classifying them."* The justification for this new geography is claimed in "I am of the opinion that the originality and power of geography as a basic science will soon establish a first rank position for geography among the sciences."* Which seems to be a justification through tautology, thereby not moving one through persuasion from von Richthofen's, "Thus there are two approaches according to whether the areas of the things and the phenomena are the primary object of study. The first is Special Geography, and is primarily descriptive. The second is General Geography. One is synthetic, the other is analytical."* And this is exactly what Varenus had introduced with his new paradigm!

2.5.1.

The object of the revolution into 'new' geography was to establish that only General Geography would survive as the science of geography. An ideal - typical example of the contribution, written by J.W.R.Whitehand, entitled "Innovation diffusion in an academic discipline; the case of the 'new geography.'"* was published by the Institute of British Geographers. The paper set out to prove the value judgement that the acceptance of

the 'new' geography was recorded by the increase in numbers of "new geography"-type questions set in public examinations. The spatiality of the project was represented by an axial line connecting Cambridge to Bristol; the two reputed centres of 'new' geography; from which measurements of distances were taken.* This datum line is dubious, because distances were given for innovation spread from the line in miles, whereas in reality ease of travel between two points is the more telling factor. The data concerning the items taken from the examination papers were even more dubious however: Whitehand writes, * "All questions; whether compulsory or optional and irrespective of the number on the paper and the duration of the examinations; were given equal weight. ...A difficult classification problem was presented by reference to the forerunners of the 'new' geography... viz. von Thunen, Weber, Christaller, Losch..." But the statistical methods used were also highly problematic in conjunction with such dubious material, "Spearman's Rank-Order Correlation Coefficients have been used throughout," noted Whitehand.*

2.5.2.

The 'new' innovation in geography was shown, of course, by Whitehand to have diffused through the academic discipline. This diffusion was shown to be related to distances about the the base line, and these distances were shown to have been measured. The base line for this diffusion passed very close to Oxford, which has a University, which at the time contributed to the areal dispositions of 'new' geography teaching staff, but singularly failed to contribute to innovatory examination texts. The objective statistics formulated through Spearman's correlation were probably as doubtful in value as when these same coefficients were used as the proofs for dividing generations of school-children by I.Q. The disaster that these statistical methods wrought when used for Grammar School selection is a sad chapter in educational history. Quantitative studies deserve better methods than those that have already been found wanting in the real world. Whitehand failed to analyse his data sufficiently. His datum line connected three points, one of which he ignored because it did not fit the premissed value judgement. He excused sources of information, because they "do not provide satisfactory information", advances in new paradigms surely come from confronting the problems raised by unsatisfactory information. Yet in this paper, given by the I.B.G. as an exemplar of quantificatory technique, it is almost laughable to understand the terms that Whitehand

"considered diagnostic of the 'new' geography."* These include, 'data collection', 'deductive derivation', 'deductive reasoning', 'correlation', 'concept of spatial equilibrium', 'empirical regularities' and 'geographic theory'; these terms are not exclusive to any singular discipline, and certainly not to only one methodological mode within an area of academic study.

2.5.3.

The quantifiers aim was stated by Harvey (1969) *with "Explanations which conform to rules of the scientific explanation as generally conceived of can, in principle be offered. This is our central conclusion." But with this central conclusion there were also a number of peripheral assumptions, that had previously been considered by the social sciences. The scientific justification for Harvey's claims were taken from Nagel* in such a manner as to assume a philosophical mantle. Nagel uses certain statements as "Since social scientists generally differ in their value commitments, the 'value neutrality' that seems to be so pervasive in the natural sciences is therefore often held to be impossible in social inquiry." * "It has taken centuries of effort to develop habits and techniques of investigation which help safeguard inquiries in the natural sciences against the intrusion of irrelevant personal factors." * "A number of further differences between common sense and scientific knowledge are almost direct consequences of the systematic character of the latter." *and "It is the desire for explanations which are at once systematic and controllable by factual evidence that generates science; and it is the organisation and classification of knowledge on the basis of explanatory principles that is the distinctive goal of the sciences...In consequence when...inquiry is successful, propositions that hitherto appeared to be quite unrelated are exhibited as linked to each other in determinate ways by virtue of their place in a system of explanations."*

2.5.4.

But the above are four statements that deny the value neutrality of the natural scientist, values are personal factors that even natural scientists have. These difficulties of systematic science and factual evidence are explained by Nagel himself. But these assumptions held out great promise for the revolutionary geographers, in that they could establish a nomothetic base for the discipline. Nagel examined four forms of explanation, firstly the attainable model, followed by three sub-types, which gave the model explanation the highest status, thus

"A type of explanation commonly encountered in the natural sciences, has the formal structure of a deductive argument, in which the explicandum is a logically necessary consequence of the explanatory premises."

*This is the form that Whitehand attempted to attain in "Innovation diffusion..." Nagel's first sub-typical explanation he terms probabilistic, in that "though the premises are logically insufficient to secure the truth of the explicandum, they are said to make the latter 'probable'." This would seem to be the case for Professor Evans paper on Ulster with reference to the line of the river Bann, and the probable inferences that follow. The second sub-typical form of explanation is teleological or functional: "explanations take the form of indicating one or more functions (or dysfunctions) that a unit performs in maintaining a ...system, or stating the instrumental role an action performs in bringing about some goal." This seems to have been the object of the geography of "The Peninsular" which set out the goal of informing the Forces concerning an area of the world, about which they would not necessarily be familiar. The lowest form of explanation, according to Nagel ("and it is a moot question whether it constitutes a distinctive type"), he terms genetic where certain "inquiries undertake to explain why it is that a given subject of study has certain characteristics by describing how the subject has evolved out of some earlier one." *This obviously refers to all regional description.

2.5.5.

The four forms of explanation form a hierarchy, the latter three subtypes being progressively inferior to the model form. The methodological inferences were quickly apparent to the geographical revolutionaries, the 'new' geography could attain a scientific aura by formulating structures that were explicable through hypothetico-deductive forms of explanation, whereas the orthodoxy would have to continue to rely upon inferior forms of reasoning. Forms of explanation offered status to quantifiers: Burton claimed that the quantitative revolution "was inspired by a genuine need to make geography more scientific, and by a concern to develop a body of theory. Dissatisfaction with ideographic geography lies at the root of the quantitative revolution. The development of theoretical, model-building geography is likely to be the major consequence of the quantitative revolution."*

2.5.6.

He claimed that there were five categories of opposition to quantification. There were those who considered that geography would be mislead

into fruitless directions; they have now been silenced (1961). There were those like Stamp, who saw the research tool of geography as the map, and not statistics nor economics nor sociology. There were those who claimed that statistics were suitable for some kinds of geography, but not others, Burton claims that qualitative data are open to statistical utility. There were objections that ends were being confused with means in the application of statistics, and thus the significant and the trivial were confused. Finally quantifiers were open to attacks, ad hominem. However Burton realized that "in examining the real world, our first task is to describe what we see, and to classify our observations into meaningful groups." * Which is what geographers have claimed to have done since time immemorable. But "the art of selection demonstrates a theory or hypothesis concerning what is significant." Concerning the nature of significance Burton refers to Hartshorne's notion expressing "the variable character from place to place of the earth as the world of man" extended with "man is the measure of significance, and spatial variation is the focus." This is, of course, purely an American power, territory and possession conceptualisation, where the world is a mere resource. The statement of significance is a totally value laden claim to the resources of the earth as utility.

2.5.7.

Burton then claims that "the first steps in the development of theory are through the observation and description of regularities, as the spatial arrangement of cultural features, human activities, and physical variables. These facts are sorted through theory, if they are not to remain a meaningless jumble. Without such theory, everything in the world is unique."* Many French geographers could rightly claim that this was the process followed by Vidal de la Blache using a theory of words and not statistics. However Burton would counter claim that "The core of scientific method is the organisation of facts into theories ...with a view to validation through prediction." The best tool for this is mathematics. Because mathematics is more rigorous, and more important, it is a considerable aid to self-deception. David Harvey writing in "Explanation in Geography"* carefully argued the case in the accepted formulations of the time in order to establish Burton's claims to the logic of a revolution in geography. However upon completion of this book, Harvey wrote a revealing preface. He claimed that it was but a step forward in his knowledge; "In constructing this interim report, I have had a good deal of help: what started for me as a quest

to understand the nature of certain powerful tools of science, thus ended as a quest for an understanding of the totality of the process which leads to the acquisition and codification of geographical understanding." *He added, "I interpret this ('scientific method') in a very broad sense to mean the setting up and observing of decent intellectual standards for rational argument. Now it is obvious that we can observe these standards without indulging in quantification. Good geographers have always observed them. I believe that the most important effect of quantification has been to force us to think logically and consistently where we had not done so before."*

2.5.8.

At this point geography presented an apparent choice of paradigms. Simply one might follow the traditional orthodoxy or opt for the revolutionary methods of quantification. The choice was not simple. As Burton realised, "Although the quantitative revolution is over, it is instructive to examine its course because to do so tells us something about the sociology of our profession, and because it provides a background for the question, "quantification for what?" *Indeed, even the innovators of quantificatory techniques did not agree as to whether the revolution applied nomological strictures to a world of unique items, or whether it merely made thought more logical and consistent. It did impose upon a generation of students a strictly mathematical geography. It did, and still does impose stresses upon teaching the subject in schools, and it created two fresh avenues of thought. Firstly that of Dickinson * who devoted much effort withstanding the destruction of regional geography, and the work of Alan Pred, in which he tried to simplify the overwhelming impact of too much mathematics, by offering geometry and algebra as extensions of crude numerical formulae. The revolution failed to establish an acceptable paradigm. The present paradigm in geography is a discipline of tensions. The quantifiers took the tensions from the Varenian divisions that derived from nationalism and particularism, and expected to establish laws possibly acceptable to physical geography, then to sweep human geography into the same formulae. The Varenian division of the discipline is extant. In Britain resource funding by different government departments continues to emphasise the division between physical and human geography.

CHAPTER THREE: GEOGRAPHY AND SOCIAL THEORY

For now we see through a glass, darkly:

First Corinthians 13 v.12.

3.1.1.

The modern approaches outlined in Chapter 2 all deal with problems from geographers points of view. There appear to be three levels of treatment offered. Problems may be treated empirically, or they may be treated analytically, or one may talk about geography as a self perception. Consider the following from Coates, Johnston & Knox*, considering the spatial dimensions of social inequality; "Nevertheless, the phenomena involved are complex, operating together as mutually reinforcing variables whose origins and effects may be seen at once in social, economic, political and spatial terms." These phenomena have been better considered in the social sciences than in geography, but best considered in sociology. Geographers have not taken into their work a long tradition and debate from sociology, that is just missed out, or just wrong. Sociology has shown that there are not just social, economic and political terms; but that there are ranges of terms with implicit assumptions that stem from very different theories of the world. Further, complex phenomena do not necessarily reinforce each other, nor do they need have a poolable causality, nor mutual effects. The implicit assumptions may be either ontological or epistemological, and lack of distinction between them frequently shows in geographical texts.

3.1.2.

The ontological assumptions in the "Peninsular" paper concerned the existence of Iberian life as an unchanging phenomenon through centuries, even though the existence of this status quo was gleaned from many diverse sources. A similar assumption was used concerning "Ulster". The theory of what in reality exists in "Innovation diffusion..." was dubious from the outset. Epistemologically all these papers were weak. "The Peninsular" did nothing to examine the procedures and conditions that made knowledge possible; The "Ulster" paper assumed that historical records were adequate to justify the stance taken concerning a present day political division of the land; whereas Whitehand assumed that mathematical totting up was the ultimate knowledge from which proof could be shown. These two distinctions constantly appear in the geographers concern for social, economic and political terms, that appear to be acceptable. Society is reduced to terms concerned with system or action; this is further reduced to society and environment, and the environment is further reduced to living area determined by culture. The whole of this then becomes analogous to a mechanistic system, which then gives ease of handling for the human inhabitants of the society being examined.

General social traits may be reduced to rules, and special traits may be reduced to attitudes, as was so clearly shown in the "Ulster" paper, 3.1.3.

Sociologists would inform us of the nature of societies. Men, however differ concerning their views of the world and in their ways of explanation. According to Martindale, *"The entire structure of human culture is learned and maintained, by habit." If this is so, then the first difficulty that arises in taking a sociological view of any theoretical framework that appeals to one, is to realise that one's own viewpoint arises from convergence with one's own values. This is a bias to be aware of, because the bias may be not only illogical but may also be determined by the habits of one's own culture. If the cultural bias of British geography is towards disciplinary synthesis, then all the three examples quoted above are guilty of this. The differences in the mode of the texts and the reasons that are used for individual justification of choice of subject matter, merely reflect the individual authors values. The societies examined show a social framework of either Iberians, Ulstermen, or quantifiers framed in social typifications derived from each authors cultural expectations. All could be wrong, in every chosen item. A contrary view of unexamined assumptions could be put forward in sociological terms, that could be equally 'correct and logical.'

3.1.4.

Four different sociological theoretical constructs seem to be commonly drawn upon by geographers. My view of these constructs is value-laden, biased and culturally determined, before I write. My own biases have classified them before, therefore I can only set them out as idealized typifications of sociological theories. Ideal types are constructs used by some sociologists as references from which the real world deviates. They are extended models used as forms of explanation, as when a teacher says, "The Earth is round," since he idealizes the nature of a planet, and simplifies the nature of a sphere, and simplifies the geological structure of the World, such a typification is incorrect upon all counts. However the ideal type is helpful in order to introduce the notion of a non-flat earth, and to relate vast size to a hand held object, as a ball within the pupil's realisation of reality, also the erroneous simplification eliminates a vast amount of prior and complex explanation. Ideal types in this chapter are of this nature, they are biased and simplified examples, being far from definitive. The four

viewpoint examples given here are those typified by Talcott Parsons, Max Weber, Karl Marx, and those sociologists who are labelled as phenomenologists. The derivative theories considered are structural functionalism, social action, social conflict, and phenomenology. These four frames of reference relate to the general question, "What is the nature of society?" It is imperative to realise that although the theories may argue between themselves, they neither use a universal technical language, nor do they realise universal conclusions. The modes of the arguments are mutually exclusive. Contemporary geographers seem to flitter across these theoretical boundaries.

3.1.5.

In the examples given previously, the problems arising from social borrowing become apparent. In "The Peninsular" the nature of Iberian society was left to references from historical documents. In the "Ulster" paper, a society in open conflict was seen as a society that was coming to terms with certain strains in the functioning of the social structure. In "Innovation diffusion..." the relevant society was split into those who did and those who did not. Such a social phenomena cannot exist in any reality: even in such a simple device as a referendum vote, there are numerous ways of accounting for those who failed to vote either "Yea" or "Nay". In the example from Coates et al (3.1.1.) to consider the dimensions of social inequality, is reductionism, and spatial dimensions of social inequality then becomes secondary reductionism. This confusion is then increased by the cross referencing of different social theories, for instance, complex phenomena, reinforcing variables, and origins with effects. Unless this was not made as a social statement. There has been an attempt to show in the previous chapters of this paper that assumptions between cultures, nations and even within languages mislead the naive as well as the academic. A similar difficulty arises when one moves into uncertain disciplines, that appear to have similar materials that appear to be relevant. In each of the following sociological theories, each type considers a tentative theory that is seen as problematic. Out of consideration of the problem arises a new theory. Simply each theory arises from the problems of one of the other theories, because each author found certain inadequacies. The circularity of form is the status of the argument within sociology. There is no one definitive theory. There are choices and there are unexplored ideas, but because choices are made by individuals, one must give reasons for one's chosen

theoretical social type of explanation. It would be dishonest to do otherwise.

3.2.1.

Talcott Parsons was concerned to establish sets of universals or laws of social life which would explain any particular social fact. Such facts would be empirical. He had translated Max Weber (q.v.) from the German into a book for America. The liberal notions of Weber's concept of social action were not conservative enough for Parsons, and Weber's formulation brought the individual into the social equation. This ideographic form was eliminated by Parsons, in order to establish a purely nomothetic typology of society. Parsons considered that theory, "is confined to the formulation and logical relations of propositions containing empirical facts in direct relation to the observations of the facts and thus empirical verification of the propositions." *This implies that there must be an empirical social system and a theoretical one; the reality of the former is very different from the structure of the latter, which only defines the properties of the variables in the social system and shows relationships between empirical values. Therefore each theoretical term has to be interpreted. The inhabitants of this social world are not taken as acting people, but as the purveyors of roles which when acted upon show conformity to their expected roles. These roles could be evaluated as one of Parsons commentators suggested, * "We need to develop quantitative units and forms of expression so that we may utilize in the description of societal phenomena the tremendously powerful technics of mathematics."

3.2.2.

This was a form of societal explanation that offered great appeal to many geographers, because what Parsons had offered to the Americans as a justification for a very inequitable society, also offered a simplified formula for reducing the ideographic content of human geography to the sum of an individual's roles. The mode is outlined above. Observed facts are empirical facts, which may be verified. The theoretical system justifies the empirical system. Roles are both theoretical and empirical. If roles are empirical one may enumerate them. These are then quantifiable units, from which one may quantify the ideographic nature of human activity. This social theory then helps reduce all geographic data to nomothetic structures. Which is exactly what Whitehand attempted to show in "Innovation diffusion..." However Parsons

formulated his theory out of the work of Weber, who in turn had formulated his social theory as if in argument with Marx, therefore it must be borne in mind that Parsons work was a dialogue within a dialogue. Part of his problem was to examine four problems that face all societies. These are, How does a society govern? How does it maintain economic stability? How does it hold itself together? And how does it manage stresses within the society? These Parsons reduced to laws.

3.2.3.

In the Parsonian formulation, the structure of every social system was capable of facing four functional problems, which social organisation had to solve, the mnemonic for which is termed GAIL. The goals (G) of society are dealt with through the government or policy of the society. The economic welfare of the society is dealt with by the adaptive (A) subsystem. The integrative (I) subsystem is maintained by the profession of law, the media, and other professional groups who restate the social values of the society. The latency subsystem is concerned with social pattern maintenance and with the management of social tension (L), this problem area being ordered through the family, the schools, religious groups and the civil police. The structure of society has four functional subsystems, the political, the economic, the value setters and the value enforcers, each of which may be seen and analysed as a social system within its own right against an environmental background of the other subsystems. Each subgroup must adapt to the total 'environment' if it is to achieve its goals. This formulation of social models should not be unfamiliar to those geographers who are conversant with the anthropological work of Radcliffe-Brown, or the place-work-folk constructions of Le Play. The influence of both of these contributors is clearly apparent in Talcott Parsons modelling of society.

3.2.4.

The Parsonian approach made a powerful appeal in sociology prior to the quantitative revolution in geography. A similar appeal was easily transferable to geographers. Social structure and social functions were put together as interdependent faces of social explanation. The apparent ease of explanatory means and the power to relate social parts to social wholes derived from the fact that Parsonian theory seemed to explain. This model of society showed regularities, conformity and above all, system. The Americans sought justification for expansion into new territories, and explanation of movement after civilization.

The British saw in this framework a neat synthesis and a general law for the functioning of societies. The appeal to English speaking geographers was obvious. The ideographic content of human geography could first be codified, then the structure of societies could be mapped, and finally the resultant data could be subjected to quantification. These concepts were taken into the social view of the world in the 'Ulster' paper, but especially this marks the view of society assumed in "Innovation diffusion..." But disingenuous ideological neutrality is based upon a non-examination of the assumptions that Parsons made. Parsons assumptions concerning social structure are not free of problems.

3.2.5.

The subsystems within the Parsonian analysis of social systems are structurally functional. They are also interdependent. Therefore there is an inbuilt difficulty concerning the explanation of social change using this model. If the structures of societies continue to function, there is a similarity to perpetual motion, in that change may only come from outside the social system itself. Internal revolutions can not happen, because as mere dysfunctions or social tensions, the system should always cope with their impact and adjust their tensions back into the system.* The appeal of this form of explanation for the structuring and functioning of society is obvious in the work of those geographers, who extended their methods into quantification. However there is a philosophical problem in their claims to a quantitative revolution based upon the Parsonian notion of society. The quantitative revolution took place within the establishment of geography as a discipline, and according to this social formulation, revolution may only be an external phenomenon. Quantification in geography within this social context may at best only be a stressful strain. As a disciplinary management dysfunction, quantification gave to geography a reallocation of roles, for those who had new techniques to offer.

3.2.6.

If one considers that one's total contribution to society may be gauged by the sum total of one's social roles, then the Parsonian formulation has appeal to the individual. But roles alone rule out the individuality of the individual, and in doing so rule out the interaction of social dynamics. When Parsons translated Max Weber's work, it must have appeared to him how the idiosyncratic element of human consciousness that Weber had included in his theory of Social action, would not relate to the nomothetic explanation that Parsons wished to establish.

In order to establish a logical explanation of social interaction Parsons wished to set out an orderly and positivistic model. There could be no ideographs. Social structures could not be derived from the content of the human consciousness, which were associated with the inward beliefs of individuals. Therefore to explain this interaction in a positivistic manner, the human roles became the norm, and the sum of a person's roles became the final total of assessment of human contribution to society. The accusation levelled at Parsons for this reduction of humanity to 'things' is termed reification. The two major weaknesses in Parsons theory are inability to account for social change and reification.

3.3.1.

Social-action theory in sociology is usually attributed to Max Weber. His work post dates that of Karl Marx, and may be seen as an attempt to synthesize the crass oversimplifications of positivism. The poverty of positivism lies in the attempt to keep cultural and physical sciences apart through the explanation of phenomena, irrespective of whether the phenomena are those of the physical world or those of the individual. Weber saw that there was a choice of explanations available to sociology because science is the analysis of nature in terms of causal laws, whereas history is the analysis of nature as a pattern of unique events. The nomothetic and ideographic dichotomy is not unique to geography alone. This simple division is then extended, in that human thought in the natural sciences has a distinct form from human thought in the cultural sciences and therefore requires a distinct method. Further it may be suggested that the physical sciences deal with facts, whereas the cultural sciences deal with meanings. Thus the method of explanation in the natural sciences would be through experiment, whilst the method of understanding in the cultural sciences should consist of interpretations.

3.3.2.

This dichotomy of view by Weber offered the choice that the world could be dealt with as an object of knowledge, or that the world could be used as a field of action. These two views of reality may be termed positivistic and idealistic. They may also be termed nomothetic and ideographic. One view only becomes fully explanatory if it is treated as value free and untainted by one's preferences, the other view leads to political action concerned with social change. These are the two flows

of ideas that underpin the present paradigm in geography, and have done since Varenus set them apart. The individual contributors to the 'national' schools of geography set out in the first chapter, all showed strong emotion for their ties to the discipline. All showed values both national, cultural and tending towards either positivism or idealism. The same is true of the authors of the contributory texts in the second chapter. The nomothetic / ideographic division in geography, according to Weber's view of society, relates only to individuals emotions concerning different methodological process choices. It seems strange that geographers have not realised this. Reality is not reducible to a system of laws, which seems to be a value that the quantifiers hold. If the relationship to values and the realisation of values is a-priori necessary in order to understand the unique, then a system of laws is not possible without taking the values of the participant individuals into account. Prediction is only possible within closed systems; and no body of laws could be established that could exhaust a science of culture, because values change. In order to examine this conflict of ideas Weber posited the following scheme * which is included because geographers deal within these same disciplinary areas:-

3.3.3.

Discipline	Kind of Data studied	Type of explanation employed	Nature of resultant expln.
Cultural History	Meanings, factual conditions	Meaningful interpretations, causal explanations	Unique sequences of cultural development.
Cultural Science	Meanings, factual conditions	Meaningful interpretations, causal explanations	Causal laws of cultural phenomena
Natural Science	Facts, explored by meanings.	Causal explanations	Laws of natural phenomena
Natural History	Facts, explored by meanings	Meaningful interpretations, causal explanations	Unique sequences of physical development.

3.3.4.

Weber's ideas lead to some confusion concerning their interpretation, because although he developed certain theoretical and philosophical issues, he did not clearly separate these from his methodological ideas.

Early sociology was faced with problems of methods, because much of the material of the discipline was taken from history, and historical data are notoriously subjective, consequently data not reliably applicable to statistical methods. Nor could sociologists see ways of putting society into a laboratory. Methods which were employable were comparative methods based upon historical material, with supplements from ethnography. These are familiar problems to geographers. The compilers of "The Peninsular" faced the difficulty of obtaining material that was not dependent upon ancient texts. The difficulty in the "Personality of Ulster" arose through a confusion of facts and values when the author chose sides in a debate. The paper of "Innovation diffusion..." presented a problem in assuming that theory and philosophy are the same thing, all values were presented as facts and the quantophrenic methodology just ignored the reality that was in the real world. This is the difficulty when one takes reality into a laboratory, when it is social reality. This confusion upon Weber's part is open to the same criticisms that are often levelled against regional geographers, such as Dickinson and Minshull. As in "by what standards does one compare one regional study to another, other than by the standards of common sense." Weber would claim that common sense is one of the great sociological unknowns, that requires researching.

3.3.5.

Weber accepted that meanings and values were basic subject matter for sociologists; he considered that science was science if it dealt with mental, social or physical phenomena: further he considered that to establish an explanation of the meanings of social events as an end product would not put sociology in a different class from those disciplines that attempted to establish causal laws. He believed that one could arrive at methodological precision through a properly developed typological procedure. To this end he posited the notion of 'idealized typifications'. (Ideal types).

These would avail the comparative method of a means to actually compare cases.

3.3.6.

These hypothetical, but concrete individuals could be personalities, situations, classes, changes, revolutions, sects, or institutions. Ideal types are to be found in every natural and social science, if one 'sees' reality through these comparisons. A common ideal type familiar to geographers is the river estuary printed as an explanatory key

on Ordnance Survey maps, in order to explain the conventional signs which may appear on the map. The original purpose of these maps was for gunlayers to bracket their fall of shot in case of war or civil war. The ideal estuary has little to do with this, because it does not exist, but it does fulfil the two basic criteria of idealized typification. It is an objective possibility and shows adequate causation. All models are abstractions of ideal types, but not all maps come up to the two Weberian criteria, and certainly few "Models in Geography" * show signs of either criteria. There are numerous rigorous conditions laid down in Weber's formulation for understanding social interaction. The notions that are termed here as beliefs, he argues for in a logical manner. His intermingling of theory, philosophy and methods was not a chance happening. Although this confused those who were seeking simplifications, and the intermingled parts were teased out by Parsons in his search for a nomothetic formulation of societies, it is possible that this intermingling of philosophy, theory and methods was both deliberate and meaningful upon Weber's part. It is only now becoming vaguely apparent that this seeming confusion may offer a way through the nomothetic - ideographic nexus.

3.3.7.

It is now possible to relate the Weberian chart (3.3.3.) to geography. The division of nomothetic geography could relate to those marked 'Natural Science' and 'Natural History' whilst ideographic geography could relate to those marked 'Cultural History' and 'Cultural Science'. The permutation is between culture; nature; science and history. These are the ingredients of geography at first glance, as have been outlined in the previous two chapters of this paper, and the resultant explanations are equally at home in geography as in sociology. Unique sequences of cultural development gave an appeal in the "Ulster" paper. Unique sequences of physical development are the explanations given by the determinists, as Huntington, or the authors of the "Peninsular". One might claim that the "tradition Vidalienne" sought causal laws of cultural phenomena. But the quantificatory 'revolutionaries' would claim to be able to reduce all geography to explanations by laws of natural phenomena, as Parsons attempted in sociology. However a Weberian view of disciplinary data shows that the division between ideographic and nomothetic is too simple and that deeper analysis of data, and explanation is required in order to arrive at an explanation that is meaningful if it is to relate to the primary data studied. The required control

that Weber offered to compare material across the boundaries of reasons and causes was the ideal type. It was as if in debate with Karl Marx, that Weber formulated an analytical theory of society. Social action represents a liberal view of the world, bringing men into the social world of structures and functions, and endowing them with meaningful responsibilities, rather than suggesting that they live in societies determined by social conflict.

3.4.1.

Modern conflict social theory has two major contributors, Charles Darwin and Karl Marx. Marxist ideas of socialism arise from the notions of social conflict. These ideas run parallel with the conflict ideology that resulted from the ideas of Darwin being extrapolated to man. Yet the two ideologies conflict about and around the nature of economic competition. Much of Marx's writing was a dialogue with Hegel, who suggested that in society one was faced with a certain ordered conflict of oppositions centred about personality, the state, society and mankind. From this the dialectic of civil society was due to each man's struggle to pursue his own egoistic good. This pursuit of good, inevitably sharpens the difference between the classes, separating the wealthy from those in poverty. Further to this the division between the classes is a product of the rule of law, because law and property are inseparable. The central difficulty for mankind is that men are taught to see their world as an interconnection of objects, whereas in reality it is an intermeshing of processes, and in these processes "What individuals arecoincides with their production, both with what they produce and how they produce. The nature of individuals thus depends upon the material conditions determining their production." * Therefore the point of departure for all understanding arises from the facts of material existence rather than from ideas derived from religion or philosophy or from the state.

3.4.2.

Conflict is structured into society through 'natural' process; "The consolidation of what we ourselves produce into an objective power above us, growing out of control, thwarting our expectations, bringing to naught our calculations, is one of the chief factors in the historical development up till now. And out of this very contradiction between the interest of the individual and that of the community the latter takes an independent form as the State, divorced from the real interests of

individual and community." *

From the family, where the first division of labour occurs, there is a first awareness of a division of consciousness that leads to distinctions and oppositions, which show most profoundly in societies that have a division between material and mental labour, where one group creates things that are real and another group creates derivatives from concepts. The latent slavery within the family, emerges into actual slavery of some to the law of the state to maintain the status of those who are the beneficiaries of the law. Thus the classes that are determined by the division of labour, become natural agents in opposition. "It follows from this that all struggles within the State, the struggle between democracy, aristocracy, and monarchy, the struggle for the franchise, etc., are merely illusory forms in which the real struggles of the different classes are fought out among one another."*

3.4.3.

Nationalism, not patriotism, was a bourgeois ideology. The reasons for nationalism being encouraged are not so pertinent as the realisation that all the examples of geographers given in the first chapter were encouraged in their nationalistic attitudes. It is not just the case that the attitudes are built into nationalism that laud a chosen course, but there are also ideographic assumptions that are included. These paint geographic pictures of personalised needs for the chosen nation. The mixture of bourgeois ideals and national needs together paint a picture that is ideological in character and the character is political. Nationalist politics include emotions, assumptions of strengths, and antagonism towards other nations. But Marx offers a different view of nationalism, which developed side by side with capitalism. This included the notion of the land being not a utility of the market place, but a national asset. The notion that order and law was not a commodity to be purchased, but a shared experience of all the members of the nation. Further he would suggest that the 'national schools' of geographic views were redundant, as only serving the interests of intranational exploitation, and that an international combine of workers could reduce international conflicts.

3.4.4.

The class struggles of slavery and feudalism changed with the advent of capitalism. It exchanged the man to man values to a personal cash exchange value, and exchanged a host of guilded freedoms for free trade. "In a word, it has replaced exploitation veiled by religious and

political illusions, by exploitation that is open, direct and brutal."* This is one view of the conditions of the subject matter that people geographical texts. The conflict between the capitalist bourgeoisie and the proletariat is central to the society that we live in, whether the capitalists are local, national, or international concerns. The conflicts generated increase the consolidation of the sides involved, and these consolidations typify the accounts of societies that geographers must use in explanations, be they rural, urban, historical or spatial. Most sincere accounts using quantificatory data are offerings of illusory conclusions as to the processes of class conflict. Whitehand's paper seemed to take account of an area without a society. The "Ulster" paper, saw little conflict of classes as causative to the condition of Ulster. The "Peninsular" missed the massive class struggle that had taken place in Spain under the label of a Civil War. But the bourgeois class has agglomerated the population, centralized the means of production and has concentrated the means of production in a few hands; which has been most noticeable in agriculture. Thus the capitalist class has created more productive forces than all the generations of previous histories. Through the division of wealth, the bourgeois classes are turning against one another, as in the American debacle in Vietnam, and concerning their conflicts in the U.S.A. over their military occupation of the Holy Land. "More and more, society is splitting up into two great hostile camps, into two great classes directly facing each other: bourgeoisie and proletariat."*

3.4.5.

One may dismiss Marxist ideologies on account of the prophecies having not been fulfilled, or upon account of the utopian dreams being scientifically implausible. But any geographer may check Mackinder's map* "The Natural Seats of Power", and answer how Marxist influenced socialism has filled the Pivot area and taking half the marginal crescent of the world, has splashed deeply into the outer crescent: in a mere two generations of time. No social scientist can ignore the dialogue that Marx set in motion. Both Parsons and Weber formulated theories in answer to the problems that Marx set out. The example of class given here, is only one pertinent aspect, but there are a series of assumptions that people hold, that Marx would suggest they re-examine. If this should include geographers, then they require to decide to which of the classes they owe allegiance.

3.4.6.

The bourgeois classes saw social conflict from the ideological standpoint derived from the work of Charles Darwin.* This conflict of conflict theories offers both sociologists and geographers choices of problems derived from their latent values. Darwinism gave justification for attitudes supportive of nationalism. In the "Peninsular", the authors take a superior view towards the Spaniards, in the "Ulster" paper a choice favouring the Loyalists is made, whilst "Innovation diffusion..." declines to report upon those so uncultivated as not to quantify. Social Darwinism lies close to the justification for Imperial British thought. The views of development and causality that Darwin's evolutionary theories suggested were readily applied to mankind. All creatures are in competition to survive. There must be a natural selection of the most fit. Therefore for mankind, when the level of subsistence falls, then the laws of natural selection should operate. Through natural selection, man was the only intelligent form which sustained the use of language, discovered how to control fire, then maintained his ascendancy over other life forms through observation, memory, imagination, curiosity and reason. But the tribe with the strongest ethics of solidarity always overcame the ethically weaker tribe in battle, even at the sacrifice of some of its bravest men, but in civilized societies, "we do our utmost not to eliminate the weakest men...we build asylums for the imbecile, the maimed, and the sick...and our medical men exert their utmost skill to save the life of everyone to the last moment. Thus the weak members of civilized societies propagate their kind. ...excepting in the case of man himself, hardly anyone is so ignorant as to allow his worst animals to breed."*

3.4.7.

Humans also take only their fittest men to serve in armed services, thereby eliminating the fittest and aiding the lives of the weak. Darwin's superior animal seems to create a society that tends to destroy the biological superiority that natural selection took so long to produce. The intellect that marks the human being as in a class nearest to the divine is in immediate danger of destruction by the ideas of democracy or socialism. The derivative problems of this form of belief are still with us in considerations of the status of comprehensive education. When as apparently egalitarian form of education is imposed upon a nation by politicians with elitist educational backgrounds, who maintain elitist

educational boltholes for their offspring, and for those of their literati in the civil service. Then the immediate question that arises is to enquire why the structure of educational institutions has not been changed first into forms of democratic management and administration. Darwin saw this contradiction between human society and human intellect. The survival of the fittest becomes a dubious cliché in bourgeois terms, because the control of wealth subverts the functions of evolution.

Thus the conflict involved in the processes of natural selection is thwarted by the intervention of capital. The two basic theories of social conflict contain elements of determinism. It is the ratio of men to land that determines both human development and the attainable level of civilisation, in any given society according to Darwinian theory. It is the level of exploitation of one class, that determines the standard of the bourgeois classes' civilization, according to Marx.

3.5.1.

Knowledge of society does not present itself as a neutral study. Geographers in delving into parts of social theory collect parts of social understanding and meaning. The Parsonian, outline of social interaction is derived from a nomothetic theoretical stand. Weberian social action theory is ideographic. Darwin realised that from a collection of ideographs of natural history, that there could be a nomothetic formulation for explaining the process of evolution, but that this became illogical when applied to human societies. Marx ideographic and nomothetic explanations in constructing his theory of social conflict. From all these theories one may accept the fact that the acquisition of knowledge is a social activity. The group of sociologists who studied most closely the production of knowledge are labelled phenomenologists, but in order to understand their problems one should first consider the contribution to philosophy, sociology and geography of Kant.

3.5.2.

Immanuel Kant* was a teacher of geography at Königsburg, who later was acclaimed as a philosopher, who is frequently burdened with some responsibility for the Germanic progression of geographic conceptual development. As a point of departure, philosophical understanding. Geographers often see geography as the cause of Kant's contribution to philosophy, in that it enhances the status of their discipline.

Further to this his philosophical ideas were glossed back into history, in order to establish different connotations of geographic meaning, as if the understanding of geography was the sole reason for Kant's excursions into philosophy.

3.5.3.

Kant's philosophy may be given as proof for almost any chosen geographic standpoint as in these random extracts:

"In his (Kant's) view the human element was an integral part of the subject matter of geography....he regarded both history and geography as descriptions, the former in time and the latter in space. He claimed physical geography to be a 'summary of nature',....(it) thus embraced the outer physical world, the earth's surface, and its cover of life forms of plants, animals and man and his works..."(1969 / Dickinson.)*

"....Kant was able to produce, without the experimental method, but by the power and logic of his penetrating intellect, an unrivalled account of man's cognitive and moral powers. Kant thought that the freedom of the will in man was a necessity of nature, as the conception of natural science demanded the notion of necessity as a basic postulate. There arose from this (not Varenus?) the problem of the two kinds of knowledge. On the one side we have the realm of knowledge of nature where law and necessity prevail; on the other the knowledge of man, his activities, societies and beliefs, where we act as if man had some freedom of choice. This in fact is the model of the subject over which geographers presently contend." (1967 Chorley & Haggett)*

or

"According to Kant, all knowledge can be organised from three different viewpoints....disciplines that study these categories - as - such are the 'systematic sciences.'...a second way of looking at facts is to see their relationship through time. Historical sciences employ this viewpoint...thirdly, there is the study of things as they are associated in space. This is the domain of the 'geographical sciences'. It is readily seen that in this philosophical construction geography gained an honourable status amongst the sciences." (1965 Jan Broek)*

3.5.4.

Indeed how could geography fail to find an honourable status amongst the sciences, when geographers can claim that Kant's view was that geography was only ideographic? Or that geography was both ideographic and nomothetic? Or that geography was indeed a trilogy of all the sciences? Perhaps Kant presents to geographers only a model over which

to contend. The philosophy of Kant offers justifications to geographers, whether they are arguing for a unity, a dichotomy or a trilogy of meaning for the enhancement of their discipline. However there is some agreement that Kant made a contribution to the scientific nature of geography, through his conviction that human knowledge was limited to phenomena alone, and therefore transcendental metaphysics was impossible. Thus one should renounce speculative philosophy, and limit one's knowledge to the definite results of science. Kant's contribution to knowledge arose through his dialogue with Hume, who posited that 'all knowledge comes from sensory impressions,' but then the problematic question arises, 'From what sense data is our knowledge of causation received?' which must elicit the response, 'None'. But such a response would destroy the logic of empirical science.

3.5.5.

Therefore Kant qualified the nature of knowledge, which he argues begins with experience, even if it does not logically arise out of experience, because experience may also relate to aspects of reality which are not immediately supplied by the senses. These aspects of reality, Kant termed a-priori knowledge, inclusive of which were both time and space, neither of which are arrived at through the physical senses, but are 'intuited' by the mind. Therefore, according to Kant, 'progress in knowledge' does not imply that reality has changed, only that we have changed our a-priori concepts within our minds and accept a variation upon the nature of causality in these instances under review, which becomes justification for the acceptance of Darwinism, the Copernican alternative universe and indeed any paradigmatic change derived from alternative a-priori concepts. For geographers Kant gave a wealth of intuitions to be available to them for scientific treatment, and the responses to sense data a material for descriptions. In this he justified Varenius' division of geographic knowledge, not as a geographer, as a philosopher.

3.5.6.

In Kant's view of the world the individual receives more emphasis than the group. This liberal view of history is more concerned with opportunity than with group solidarity, thus society would not be an organic form, but an ordered community of independent wills. Therefore history represents the development of the principle of freedom. Kant, naturally wished to formalize the principles of freedom in terms of the requirements of order in interhuman terms. So one should be able to

realise that the external conditions of government could well be the very condition that the individual required to attain his full nature. Therefore the central problem for societies would be to attain a universal system of law based upon the nature of man rather than upon the rule of force. Individuals, as free agents could participate in constitutions based upon laws that they had helped to create. A participatory society would be a conceptual advance upon contractual notions, or group dominance ideas of social responsibility, and by placing law as the central agreement of society Kant offered a very different view of the world from the major conflict theorists.

3.5.7.

But for Kant there is a problem concerning the object in itself, as far as knowledge is concerned. Laws for individuals would have to be founded upon science and knowledge. For what else could the law be founded upon? New science and knowledge required searches for the objective, the general and the universal. These elements of knowledge, through science evolved into a search for the formal. This process of search has been followed in geography. If one follows the history of scientific accuracy in cartography, then this search process may be distinguished in the evolution of map presentation, but the individual items included upon maps are formal representations, the 'things in themselves' have been transferred from phenomena to representations of phenomena. When this formalism moved beyond the representation of reality upon a scale map to models drawn from the generalisation of reality, as in quantified models, then an attempt to universalise the elements of geographic knowledge was made. The formalism arose from a two way distinction; one that separated phenomenon from the thing in itself, the other, rejecting the 'thing' as an object of cognition. There was thus a distinction between form and content of phenomena, when the forms are seen as objective and universal, and representing to the mind the universal element of knowledge. The Kantian problem concerns how the object stands with regard to knowledge of it. Or does the map really represent the reality that it purports to show?

3.5.8.

A different ordering of society was derived from the approach considered by Edmund Husserl writing "Ideas" in 1913. Husserl assumed that there was a real external world which can be known. Experience allows realisation of this world, which consists of both objects and essences of essential objects. This is realised by the subject through the sense

qualities of the object. Husserl considered that Kant made a fundamental error in assuming that the only objects of experience and cognition are those of a sensory character. Husserl maintained that there were many kinds of experience. Phenomena are not merely constructions of the consciousness as Kant suggested, but they form the content of pure consciousness, because they are essences. For Husserl the content of knowledge consists of natural objects and their intrinsic phenomenal essentiality. From this a sociological school of thought has arisen through the work of Schutz * which is being introduced into geography.* Alfred Schutz (d.1959) "was not only a phenomenological philosopher. He was also a social scientist trained in law, economics and sociology. He shared Max Weber's methodological individualism, and realised the importance of an adequate theory of human action for the methodology of social science. Yet there can be no doubt that Schutz's original thinking and systematic investigations led him into new territory..."* 3.5.9.

In order to analyse the objective aspects of scientific knowledge in Kantian terms one starts with the question, "How is nature a-priori possible?" In social terms, "What are the a-priori conditions that make society possible?" In geographical terms the question would be, "What are the a-priori conditions that make space knowable?" These questions are pertinent, because Kant appeared to confine all science purely to experience. If science is only this, then the pursuit of knowledge leaves out creativity, thought, and the concept of value. If phenomena alone could be studied as science, the rest of knowledge - the noumena - the really real could not be reached. Thus all that made science worth while was to be sacrificed by Kant. Even geographers in trying to examine space have realised this difficulty. As Tuan * wrote in 1979 "Danger occurs when the scientist then naively tries to impose his findings on the real world, for he may forget that the simplicity of human beings is an assumption...." In the logic of Kantian explanation, the only possible answer to the above three questions is "forms". Schutz maintained that Kant was in error to believe that only objects of experience and cognition can be of a sensory character. He insisted, as Tuan agrees, that phenomena are the objects of immediate experience and the data of cognition. Phenomena are the essences that are the contents of pure consciousness. Therefore every object, be it factual, natural, actual, imaginary or in essence (essential) is a potential object of some kind of experience. Such experience

is related to the consciousness and to the ego.

3.5.10.

Schutz divided experiences into natural and eidetic, being the world of events and to the essences directly intuited from it. Phenomenological concern is for the eidetic, because all meaning given to the natural world is derived from its relationship to the essences that man first intuited from his consciousness of the natural world. The element of generality in social life is supplied for phenomenologists' sociological formalism through directly intuited essences. This is because Schutz's major concern was with the social construction of knowledge. His view that knowledge, both in epistemology and ontology, is constructed through the society that people inhabit, derives from the problematic nature of the Weberian position. Schutz considered that the major area of unexplored assumptions in action theory lay in the inadequacy of the structure of idealised typifications. For him ideal types had to be constructed by scientists who already had a bias to justify their work. In doing this they gave themselves a free hand to typify that which they wished to prove, not that which conformed to the essences of reality.

Many geographers whose education has lead them through rigourous fact finding missions to ultimates in data that may be clearly assessed statistically, may wonder how directly intuited essences through their consciousness of the reflections of reality could remotely approach a meaningful relationship with the reality that they believe that they have experienced. It may be put as 'Why does society want students of geography to chip bits off the Scottish mountains?' or 'Why does society send students to chip....? etc. or 'Why do students choose to chip...?' or 'Why are students educated to choose to chip...?' The form of the question to be answered derives from our notion of the relationship, form and process that we use to explain the interaction between society and the students that the educational process processes. Our choice of formulation of the question is influenced by the degrees of freewill or determinism that we see as relevant to social structure, together with the level of idealism that is present within our range of beliefs. Which ever question we choose is derived from our theoretical understanding of society.. If there are various theories to choose from, then what determines our choice of question? What beliefs inhibit our choice? From what forms of intuition do we formulate any question concerning the social ordering involved? The nature of phenomena does range

from reality to reflections from the ego.

3.5.11.

The Kantian search for objectivity may have lead into philosophical refinements of science and knowledge, but the phenomenologists have given one outstanding precept to anyone involved in researches that contain assumptions. It is, simply, "Examine the bias!" Which may be the bias of ones self or that of any significant other. For instance, consider these personal questions; "How do you judge the work of your inferiors?"; "Do you really believe that the society that you live in is democratic?", or "Do you believe that the society that you live in is really democratic?"; "To which social class do you belong?"; "Have you fulfilled your parents expectations of you?": or "What guarantee can you give as to the exactitude of the scientific nature of your work?" The "Why?" questions that follow the answers are a matter between you and your conscience, but there is an initial bias in each question, before one may even transcendently embark upon an answer. The bias stems from the typified question, each one arises from one of the social theories outlined above. Your view of each phenomenon derived from each question, is an essence, in phenomenological terms of how different formulations of reality offer elements of generality. Knowledge is socially constructed according to the phenomenological tradition. One's view of society will bias one's view as to what constitutes knowledge. If this is so the present constitution of geography, is institutionally constructed. The institutions that determine what geography is present geography as institutionalized knowledge. This knowledge is therefore socially constructed.

3.6.1.

Before either sociology or geography had become institutionalised and professional disciplines, each had produced two systems of theory, that still influence them. In sociology the division was between organismic positivism (Parsonian theory) and social conflict theory, for geography the dual vision of the world had lead to either ideographic or nomothetic methodological interpretations. Institutionalisation, the setting up of departments in colleges and universities, taught by specially selected staff, came late for both disciplines. In neither of these cases may the persons involved in this institutionalisation be termed professional, because their status, standards of instruction, and conditions of employment were all determined by their employing agencies. The majority.

might lay claim to be teachers of sociology or geography, but only those members of established or recognised scientific or learned societies, or those who made contributions of disciplinary knowledge to relevant journals might make claims to be professional within their disciplines. In order to try to understand the role of geography academically, one has to explain that the diversity of geographical subject matter still has to function under an umbrella called geography.

3.6.2.

Institutionalisation required that an area of knowledge had to be defined, which could be rendered into units that could be transmitted. Thus syllabuses could be derived from the total possible units of knowledge that were required to establish pre-professional standards for the granting of degrees and certificates. Such qualifications could only be offered after the field of the discipline had been defined, in order not to make claims upon areas of knowledge that already existed as disciplines within their own right. Having established macro-boundaries to disciplines in the academic sense of division, then internal or micro-boundaries came into being more quickly in geography than in sociology, with the fracturing of geology, geomorphology, climatology and meteorology being established in their own 'scientific' rights. The primitive claim that all areas of knowledge, including sociology could be contained under the geographical umbrella of all knowledge of 'the Cosmos', was as ludicrous as the alternative claim that all knowledge, because it is derived from social actions, could live under the umbrella of sociology.

3.6.3.

Knowledge also has political dimensions. Education in England and Wales has always differed for different classes within society, as Maclure indicates; "...the hold of public school men on senior posts in many fields, is the outcome of a process which...leads to the universities and beyond. Their success in securing entry to Oxford and Cambridge is one of the biggest advantages that they offer to those who pay their fees..." (1968) * Because, "It has been held to be the sole business of the University (Oxford) to train the powers of the mind, not to give much positive or any professional knowledge; the study of the classical books is regarded as the best means of refining and invigorating the mind. All students will henceforth be permitted to choose...the special studies of Law and History, or Mathematical Science or Natural Science,...but must present himself...to be examined in Classics..., as well as Philosophy

and History." (1852) *Whereas, "The children do not generally obtain mastery over elementary subjects which the school ought to give. They neither read well, nor write well,..., they learn their arithmetic in such a way as to be of little practical use in common life." (1861) *Finally, "We have ourselves seen schools caught in such vicious circles, and read accounts of many more....We noted the grim approaches; incessant traffic noise from the narrow streets, rubbish dumps on land nearby; absence of green playing spaces...tiny playgrounds; ...narrow passages; dark rooms; unheated cloakrooms; unroofed outside lavatories; inadequate storage space with consequent restrictions on teaching materials and therefore methods; inadequate space for movement; meals in classrooms; ...non-soundproof partitions between classes; attractive books kept in cupboards for lack of space to lay them out; ... and sometimes all around, the ingrained grime of generations." *(1967) These are all reports to government, it is the dates that are cause for concern, because according to the phenomenologists, knowledge is socially constructed.

3.6.4.

Geographers encounter difficulties when entering the world of the social nature of processes. Consider this credo by R.J. Johnston *when considering that "The main aim of the quantitative and theoretical revolution in human geography has been to develop general theory concerning the spatial patterns of human activities." He claims that "Human behaviour is affected and constrained in a great variety of ways. These can be grouped into four categories, or sets of environmental influences, those of : (i) the physical environment, the land, water and air man occupies, plus the flora and fauna he shares these with; (ii) the social environment, the cultural, organisational structures erected by man; as bases of his life; (iii) the built environment, created by man; and (iv) the spatial environment, the set of relative locations within which man exists...Most areas of scholarship are clearly identified with one of these four environments outlined here. Geography, on the other hand, has commonly studied the interactions among environments...In an age when 'socially relevant' research is more frequently demanded, it is hoped that this outline of the complexity of interrelations in the spatial system will indicate the need for, and use of, such understanding in the even less tractable task of 'improving society'."

3.6.5.

It is this attitude of certainty, positivism and an ultimate nomothetic geography, that has given rise to the intrusion of phenomenology into geographical theory. The backlash to these statements of certainty was put forward in three books. The first "Method and Measurement in Sociology" by Cicourel,* written in 1964 makes this key statement; "the unstated conditions of everyday life are sufficiently indeterminate to raise serious questions about the measurement systems now in use...some forms of everyday life may never be measured very precisely because of the innovative elements in social action." Secondly, Berger and Luckmann, writing "The Social Construction of Reality" in 1966 *included two chapters, one entitled 'Society as Objective Reality' and another 'Society as Subjective Reality'. Thirdly in 1967 Glaser and Strauss *published "The Discovery of Grounded Theory" in which they set out to show that; "Principally, what is required (to extend the range of qualitative data for generating theory) are some imagination, some ingenuity and, most of all, a considerable shift in attitude toward qualitative materials themselves." They set out to say what the aims and intentions of people are more vigorously than does Weber. To apply their social criteria to the "Peninsular" paper, one would ask for the political reason for omitting the people, and of the "Ulster" paper one would question the micro intentions of the people of the province, and then question the nature of the bias of the author. Unhappily phenomenology in the final analysis reduces to a form of empiricism, and terminates in reporting conversations.

3.6.6.

Without considering the nature of his text, there are a number of problems here that Johnston above considers and qualifies in a manner that relates directly to the values and theories that both inform him and sustain his knowledge. When he uses the notion of human behaviour, the antithesis of human action is omitted. This is followed by expectations of affected and constrained, which indicates that here is a search for law like explanations, without being involved in the philosophical debate that has concerned geographers with determinism. The physical environment is shared with the flora and fauna of Nature. Without questioning the morality of the shared experience of battery chickens, one is presented with the cosy idea of harmony and consensus in the world of creation. The social world, is that of mankind organising the structure of his world and his culture from which the bases of life

are derived through the functioning of agreed structures. Out of his cultural bases man has created built living space, and his behaviour in his environment is influenced by the space and activities in the space that surrounds him. If the researches in geography are to be meaningful and socially relevant then the aim of the discipline is to improve society.

3.6.7.

If Johnston's concern was with change for society that would offer improvement, then one might assume that he might take his theory from a standpoint of conflict, if his work was into the understanding of social phenomena, he might well divide his research into macro-theories and micro-studies, in order to view society in either Weberian terms or to have appealed to the theories of phenomenology. But his understanding of society is derived from either Parsonian structural functionalism, or Darwinian theories of conflict. Darwin had suggested that change was the inevitability of gradualness, and that change did not necessarily lead to improvement. Johnston confirms that for him societies are structures that function, "Societies are complex organisations. Within them, each member performs a particular role, either one which he has chosen or one to which he has been ordained." In fact the four tenets of human behaviours that Johnston puts forward fit exactly the mnemonic GAIL of structural functionalism. Control of the physical environment is the goal of mankind, his adaptation to this is by the establishment of a social environment, which is integrated through the establishment of a built environment, and the spatial environment offers that factor of latency which orders the whole network in which human behaviour may be observed and recorded. The basic concept of society may then be dealt with as an item that follows law-like regularities. The study of material derived from these models of societies may then be claimed to be objective material, because it stems from a logical theoretical basis. If the studies of this data follow logical forms, then the results may be seen as proofs, which justify both the methods used to arrive at conclusions, and the use of the conclusions to verify further law-like certainties. This is the way of science. Johnston dismissed all views of society, excepting this one, because this form of explanation best appeared to fit the need to establish a scientific basis for geographical theory. His choice of this form of social explanation was a value judgement, not a logical conclusion. This is an accepted form of society taken up by geographers, as did

Coates et al, in Section 3.1.1.

3.7.1.

The methods that Johnston advocates follow the usage that has been adopted by quantifiers of geographical material in their wish to make scientific investigations of society and social phenomena. Such a systematic approach to study requires that propositions are logically constructed, and are eventually capable of being tested by being subjected to scrutiny or assessment by public criteria. The chosen methods for examination, will affect what and how one examines, and the manner in which one perceives given material. By adopting the methods of the physical sciences, it may be expected that the outcome of scientific investigations will have a scientific aura. By following the positivistic tradition of the physical sciences, geographers restrict themselves to collecting data about observable 'facts' from the social world. In this the assumption is made that the proven methods of the physical sciences will insure a correct account of social reality. The process of description and analysis leads to the establishment of categories; there are regularities in distribution; there are developments of the results, and causal explanations are set out.

But eventually there has to be a point as to why these processes are carried out. Deutscher writes, * "We concentrate on consistency without much concern with what we are being consistent about, or whether we are consistently right or wrong. As a consequence we may be learning a great deal about how to pursue an incorrect course with a maximum amount of precision...It is not my intention to disparage the importance of reliability per se; it is the obsession with it to which I refer... the adoption of the scientific model in the social sciences has resulted in an uncommon concern for methodological problems centering on issues of reliability and a concomitant neglect of the problem of validity."

3.7.2.

There is an essential difference in the structure of the concepts formed in the social sciences and the physical sciences. As Schutz points out, * "The world of nature, as explored by the natural scientist, does not mean anything to molecules, atoms and electrons. But the observational field of the social scientist, - social reality - has a specific meaning and relevance structure for human living beings, acting and thinking within it." When a geogolist sets up a chemical reaction in controlled conditions upon a sample of galena, the outcome is predictable, within

certain well defined limits. But the galena and the reaction only come to have meaning when the geologist imposes his frame of reference upon them. Without this frame of reference the object and the reaction are literally meaningless. Social action is less predictable and already has meaning for the participants quite independent of any imposed by the frame of reference of any observer. G.H.Mead *has indicated that the individual may be the object of his own actions and can abstract and engage in symbolic communication which enables him to render his environment meaningful and offers him the opportunity of escape from the determinism of the material world.

3.7.3.

When a geographer engages in establishing frames of reference for study, he becomes involved in gathering information. In this he must be aware that the concepts of the world, that he is trying to expand, have been conceptualized in his own terms. They have also been conceptualised in their terms. The simplest social words, which one may assume have universal meaning, do not necessarily have any basis upon which the collector of information might agree a definition with his informant. *The Esquimaux have over thirty variant descriptions for snow. But in the process of interaction in establishing terminology, either party may so influence the other in explaining their meanings of terms, that definitions of reality change during their interaction. This is the point of all social action theory and the extension of it into phenomenology. As Silverman, *has made very clear, there is a sense in which the social sciences and the physical sciences deal with entirely different orders of subject matter. However factors of the physical world may affect social structure and social action as in the case of volcanic eruptions and tidal waves on small islands, and vice versa, as when society requires control over insect pests and communities require bowling green lawns in deserts. Pest control alters the nature of the soil, and grass in deserts removes the water table. A geographer may choose and acknowledge a methodology suited to the characteristics of social action as it seems to concern him, in his work. But he must also take account of the physical world and its possible effects upon the social world as an interaction. The economic effects of discoveries of sources of oil is an example. This is not possible if one formulates social structure as a fixed object in which the inhabitants live out their roles.

3.7.4.

The forms of social theory that impinge upon geography today, all have foundations that arise from branches of philosophy. Each form presents an acceptable form of explanation from differing political viewpoints, whether these are the politics of the state, or the politics of religion. Those who teach these theories, and those who use them as bases for justifications, accentuate their own beliefs and ideologies. Which theory appears to tie to which belief system has been avoided in this paper, but over the course of time the theoretical formulations have moved away from their original philosophical beginnings. Society may be theorised as positivistic functionalism, socially behaviouristic, socially in conflict, or as a phenomena of social formality. But having been so typified the philosophical roots are lost. Harvey * recognised this when he wrote, "What kind of object or entity are we dealing with when we seek to investigate urbanism? We cannot answer that urbanism is a 'thing' in the ordinary sense of the word...Systems modelling attempts to trace the interaction and feedback within a totality, but by having to define fixed categories and activities it loses the flexibility to deal with the fluid structure of social relationships which exist in reality." As the first present day geographer to realise that the discipline had not utilised the material at hand from sociology, and had also moved away from the problems posed by philosophy, Harvey's contribution was most timely. It is no accident that his book "Social Justice and the City" will form the basis of the next chapter.

CHAPTER FOUR: GEOGRAPHY AS SOCIAL AND MORAL PHILOSOPHY.

and when he saw, he passed by on the other side.

Luke 10 v.31.

4.1.1.

Four years after Harvey had completed "Explanation in Geography" (1969), at a point in time when 'quantophrenia' appeared to have gained the ascendancy in geography, he turned his thesis upon its head and wrote: "After completing a study of methodological problems in geography, which was published under the title of "Explanation in Geography", I began to explore certain philosophical issues which had deliberately been neglected in that book. In particular, I felt it important and appropriate to explore how ideas in social and moral philosophy - ideas that are customarily regarded as distinctive and separate avenues of enquiry from the philosophy of science which had hitherto held my attention - could be related to geographical enquiry..."* In the introduction to "Social Justice and the City", Harvey outlines the areas of geographical explanation that he had found to be problematical in his previous writing. In so doing he outlines those conceptual sections of contemporary geography that present difficulties in explanation as, the nature of space, the nature of theory, the nature of knowledge, and the nature of scientific enquiry. In order to exemplify these he explores the theme of social justice drawn from urbanism. The examples that he uses are drawn from different philosophical modes. The first half of the book being ideologically based upon the notions of distributive justice, as exemplified in the work of Rawls*, and the second half of the book is modelled upon Harvey's understanding of social justice derived from the works of Marx. He terms these respectively as liberal and socialist formulations of the nature of social justice in the urban community.

4.1.2.

Harvey puts forward the ideas of social justice in two forms. The liberal form as an accepted present possibility, he presents as a thesis. The Marxian possibility he puts forward as an antithesis. The point about "Social Justice and the City" is that Harvey does not write a synthesis; therefore the work is from the outset incomplete. To take a simple example of these two formulations, consider the justice of societies to children and infants whose parents have died. The Rawlsian philosophy is that the parents should make provision for their children, and amass some wealth for their future welfare. The Marxian philosophy is that the state should provide, until such time as the children can make their contribution to the welfare of others within the state. Distributive justice leaves more to chance than socialist justice, it also

allows children to inherit the misfortunes of their parents. Harvey realised that "Explanation in Geography" was not only a definitive work on the quantificatory theme, but that the theme was thus totally devoid of humanity towards those who inhabited the geographical world, and as such only continued the Varenian division. The revolution into quantification was not new, but rather the revival of an ancient theme. In Lord Kelvin's "Popular Lectures and Addresses" of 1891, one may read: "When you cannot measure what you are speaking about, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely in your thoughts advanced to the stage of a science, whatever the matter may be." This nomothetic appeal continued with, ... "increasing measurements and quantification being the distinguishing marks of a progressing science"* Against which Ackerman* suggested that "These statements do not deny the place of the 'geographic' region (compage) as an intellectual concept. Certainly it has been a useful concept, which already must be ranked as an important contribution by twentieth century geography." Such an ideographic response continued the Varenian division, excepting for appeals for a philosophical unity of purpose, as suggested by Mackinder (1.5.5.), until Harvey realised that this was a key problem that geographers had avoided through lack of philosophical understanding.

4.1.3.

Harvey then saw the difficulty that geographers had created for themselves, and how he had contributed to this position. The discipline existed based upon an unnecessary paradigmatic division in structure. This had added philosophical contributions into the framework, but had never been examined philosophically. The simple inputs from sociology showed that geographical data was not in total amenable to treatment as suggested in "Explanation in Geography". This view presupposed a state of geographical data theory and concepts as taken for granted. Nomothetics could not pose concepts as problems, and they could not account for change. The Parsonian view of the social world was assumed into the world of quantophrenic geography. The need was for a dialectic, but there must be a prior investigation of the terms involved, because before one may arrive at a synthesis of geography, one first requires a thesis and antithesis. Harvey suggests that there are prior analytical investigations that might be considered before 'one need embrace

the Marxist method of the dialectic.' "Social Justice and the City" sets out two simple and clear constructions of how one may view the city as problematic. The liberal formulations of the first part consider the conceptual problems of urban planning, then the social processes and spatial form concerned with the redistribution of real incomes in an urban system. This extends into territorial social justice relating to a 'just distribution'. The underpinning values are those of need, the common good and merit, derived from the morality of Rawlsian distribution. In geographical terms need may span the wish of some human beings not to starve, to the wish of some who need cheap energy to fly the oceans. The common good is frequently first utilised by the bureaucracy, and merit is a very moveable feast: killing an enemy for the common good in war time has a different merit from the same act in time of peace.

4.1.4.

The second part of "Social Justice and the City", entitled 'Socialist Formulations' considers the nature of revolutionary and counter revolutionary theories pertaining to geography. Harvey examines how these theories relate to use value and exchange value, and how these ideas extend into the modes of production and the mode of economic integration, thence into the space economy of urbanism. Between these formulations, Harvey has set out only a liberal thesis and a socialist antithesis. According to Mao Tse-Tung * "The law of contradictions in things, that is the law of the unity of opposites, is the basic law of materialist dialectics." Harvey does not attempt to unify the opposites into a Marxian dialectic, because as he points out,* "I have already indicated that a radical transformation of method occurs between Part 1 and Part 2 of this book. This transformation of method does not negate the formulations of Part 1. It enriches them to higher order concepts. It also brings about a convergence towards an ontological and epistemological position akin to that held by Marx."* One cannot create a Marxist explanation based upon accepted material that justifies a liberal - bourgeois society, which Harvey claims to have done here. Yet reference to the dialectic is not omitted by him, it is rejected for logical reasons, that should have appealed to geographers had they stayed the course and read to page 302. These were that the pressing and serious problems that confronted many disciplines at the end of the 1960's were those of economic development, the environment and urbanism. Any study

of these problems showed them to be interrelated. Although they became impact areas of study for geographers only an interdisciplinary approach seemed to offer rewards. "Social Justice and the City" is first of all an appeal for interdisciplinary examination of problems in geography. Dialectics is a suggested method, which Harvey fails to fully explore.

4.1.5.

Two further areas of investigation proposed by Harvey include "How and why would we bring about a revolution in geographic thought?"* and "Concepts and categories cannot be viewed as having an independent existence, as being universal abstractions for all time."* To the first proposition Harvey devotes his fourth chapter. The 'how' of revolution in disciplinary thought is not difficult to understand. Varenus managed a revolution by accepting the Copernican paradigm; Keynes revolutionised economics, and Burton claimed a quantitative revolution in geographic technology. There are further claims to revolutions in geography since Burton which will be examined later. This progression of revolutions mirrors a similar progression in contemporary sociology, which was examined in the previous chapter. Each 'revolution' arises at a time when the established orthodoxy of the discipline shows clear inconsistencies with the outstanding facts of reality, and yet appears to be confident of its own intellectual ability to explain these facts. The 'revolutionary' theory exposes the incompetence of the orthodoxy in order to make them open to ridicule. If confusion follows, the way opens for the new theory to offer convincing explanations to the nature of the problems devised for a new era, and to offer a new set of policy prescriptions based upon new explanations. A new theory requires five main characteristics. Firstly it has to attack the orthodoxy's central propositions as conservative by reversing their analysis. Secondly the theory has to appear new with an academically acceptable analysis of the non-disputable components of the existing theory. Thirdly, the new theory requires a certain degree of difficulty to comprehend; old concepts are given new names; senior academics waste time on peripheral issues and not having the time or energy to absorb the 'new' mode, they are criticised and dismissed as ignorant by younger, hungrier colleagues, who present the new theory as a challenge to younger colleagues and students. Fourthly, the new theory has to offer a new methodology to keep the keen but less status-seeking members of the

discipline busy. Finally, it usually has to offer a relationship, preferably an empirical one...ideally to measure something. This analysis was suggested by Harvey* to show how the orthodox geography with the central propositions of the qualitative and the unique had their propositions reversed into the quantitative revolution.

4.1.6.

The 'why' of revolution is not so difficult. Together with Harvey*, I* accept the proposition by Marx and Engels in "The German Ideology", that the ruling class produces the ruling ideas that rule society. The organisation of knowledge reflects the ruling interests in our society, and knowledge is derived from the status quo: it is our duty not to explain reality, but by changing it, to improve it. As our society devolves upon the spatiality of class, change requires revolution. Conflict in terms of the Darwinian inevitability of gradualness does not lead to revolutions: revolutions require help even at the lowest level of the exchange of ideas. Revolutions in disciplines may only be claimed when one has some clarity of understanding as to what constitutes a revolution.

4.1.7.

Besides the nature of revolutionary thought in geography, Harvey considers the nature of concepts.* "It is irrelevant to ask whether concepts, categories and relationships are 'true' or 'false'. We have to ask, rather, what it is that produces them and what is it that they serve to produce?" Geographical concepts are produced in part and serve to produce the social theories from which they are drawn, and which they serve. Harvey's examples of revolutionary theory in geography relate directly to those various social theories considered in Chapter 3 of this paper. Theories of a revolutionary nature being productive of change from within the existing social structure. Theories termed status quo preserve the existing social order in both practice and theory. Counter revolutionary theories according to Harvey produce only confusion, obfuscation and frustration. These classes of concepts are more deliberately chosen than Harvey seems to suggest. Recent moves to equate geography with phenomenology, which will be considered in the next section, are attempts to take geography back to a pre-quantophrenic era. If one is aware of the functions that concepts carry out in society, then it is not difficult to realise that a

deliberate attempt to move the discipline back in time is counter-revolutionary. Fundamental to phenomenology is a methodology of networks derived from micro-studies which will lead geography into attempts to seriously analyse data more trivial than the rejected notes of either Le Play or Vidal de la Blache. The logic of such studies requires that each situation will be dictated by an acute awareness of the intentionality of each relevant individual as a point of take-off in each micro-study. Conceptually this will take geography back in time for generations. One might as well attempt to rewrite "The Personality of Ulster", but starting from two opposite intentionalities of 'representative' individuals from either side of the line of drumlins. Two geographies would result. They would be micro-studies of regional views originating from different socio-economic histories. Any attempt at a synthesis of these conflicting geographies would be pointless, because the nature of the individual meanings of solutions are incompatible from the outset. Identical words could not have similar undertones, such a geography would only highlight the nature of the social and cultural gaps.

4.1.8.

Concepts arise through a process derived from not only prior concepts, but also from theories of what exists: these ontologies concern our notions of reality; and realities have structures. A difficulty with structures concerns their stability and it is problematic whether we know enough to decide whether the structures of theories are static, ephemeral, or for ever in transformation. The conditions and procedures that one uses to attempt to understand the nature of knowledge are epistemological. Knowledge is a part of an individual's experience, but also part of the culture that is transmitted by modes of information, education and experience; knowledge also develops out of human practice. If ontology and epistemology are determinants of concepts, being the fundamental categories of knowledge, concepts must be open to change, just as knowledge of reality and the process of knowing seems to expand and contract.

The theories that are presently on offer to geographers all have histories, and these histories have twins in other disciplines. Each theory has a methodology to offer, it has a conceptual base to serve the chosen methods, and the methods and concepts have a justification by reference to some philosophical viewpoint. Yet the open invitation to

any geographer to write a dialectic to Harvey's 'Social Justice' appears to have been avoided. Since Churchill labelled the 'Iron Curtain', socialism in the Western world has been viewed with concern, Marxist socialism has been greeted with a socialised fear. Yet the ideology of Marx has been transformed into various practical forms across the globe at a speed only foreseen by Mackinder in "Democratic Ideals and Reality." He was accused of seeing hordes of folk swarming out of central Asia, but perhaps he may have been writing concerning the spread of ideas, in which case his choice of Heartland was seemingly apt. Cohen's * globe requires considerable updating to include the ideological shades and divisions since 1973.

4.2.1.

Having realised that the structural functionalist elements which he had taken into "Explanation in Geography" distorted the balance of theoretical social meanings, Harvey also realised that there were further distortions. The choice of social theory, distorted social meaning; the choice of philosophical justification distorted the derived geographical concepts, but the separation of methodology from philosophy limited the nature of geographical categories at the disposal of the theorist. The problem concerning categories revolved around three core areas. These are concerned with human reason, paradigms and meanings.

In the 'Critique of Pure Reason' Kant raises three core questions through philosophy, that are central to those concerned with human reason.

"How can I know?" "What shall I do?" and "What may I hope?" These questions comprise an essential concern of philosophy, if it is involved with the essential potential of mankind when faced with the deprivations of reality. Hegel placed this philosophical concern in the historical context of his own times, therefore the questions lead into the actual historical process. But Hegel's historical process was an advanced and comprehensive statement of bourgeois principles. It claimed that reason was the only standard of society, it showed that abstract labour lead to a unified system of 'wants'; it showed the revolutionary nature of liberal ideas of freedom and equality, and offered history of societies as the history of irreconcilable antagonisms in the social order that could only be made latent by a monarchic structure. According to Hegel the process of labour determines the development of consciousness, whilst the interdependence with 'wants' determines the system of the

state and of society. The way to self conscious freedom lies through the 'life and death' struggle between master and servant. Of this system, all these categories terminate in the state of the existing order at the time at which Hegel lived.

4.2.2.

Writing in 'Explanation' in 1969, Harvey arrived at a similar historical position in the chapter on 'Systems': "the rendering of an explanation of any type may be contingent upon the specification of a system... justification for regarding the system as the key to explanation arises from major applications of the concept on all areas of empirical investigation during the twentieth century. From both a methodological and an empirical point of view, therefore the concept of a system appears absolutely central for our understanding of explanation in geography." A Marxian critique* of this theoretical stance could suggest that all these Helelian concepts are an indictment of the total existing order. Marxian philosophy is addressed to the negation of this very order of society. The truth which Marxists address is to be obtained only through the abolition of civil society in the form in which Hegel saw it. Even when describing the current form of society; or attempting to explain current society, Marxist systems of categories aim at a new form of society altogether. The simplest explanation for this is that Hegel's philosophy is separated from the methods of explaining the reality around him, and in 'Explanation', Harvey* eventually becomes aware that theory and methods are not enough to answer Kant's questions. He assembles the difficulties in this order:- "Unfortunately it is not always possible to separate philosophy and methodology...Nevertheless, there are many methods which can be evaluated independent of their philosophical connotations...But geographical problems cannot be solved by the mere selection of some more logically consistent methodology. What is omitted from this...amounts to an adequate philosophy of geography...The philosophical implication is that the geographer needs to identify the particular domain with which he is specifically concerned... it is easiest to identify such a domain when we possess a well articulated and well validated theory...Since academic activity frequently involves division of labour, individual geographers may specialise... and some may not be aware of the general structure to which they are contributing."

4.2.3.

This is the Hegelian statement, which some claim Marx turned upon its head. Harvey also attempted this when he wrote in 'Social Justice and the City' that geographical explanation required a methodology that was not divorced from philosophy. For those geographers who had recently accepted 'Explanation in Geography', the about turn in 'Social Justice' presented too difficult a challenge, too quickly to accept. It may be supposed that Harvey was lead into a re-examination of his material through the Marxist categories of contradiction. His philosophy of science had been derived from the work of Nagel* from whose law-like science geography would fulfil the Kantian category of 'knowing', from a science of spatial relationships one could derive the Kantian 'doing', and by establishing a category of predictiveness, geography would offer the Kantian 'hope'. However the obvious contradiction derived from a review of the work of Kuhn, not that geographers are asked to define their discipline as to the nature of the scientific model that each should choose; Is it a purely Popperian model? or is it a popperian model? The telling Kuhnian question is "How does this as a set of concepts make sense of the relationship between the intellectual and the social sides of the discipline?" Harvey felt some guilt concerning the establishment of the quantitative technology* therefore the statements in Kuhn's "The Structure of Scientific Revolutions" concerning various ways in which paradigm disputes demark themselves must have been especially meaningful. According to Kuhn * a paradigm should, "for a time implicitly define the legitimate problems and methods of a research field for succeeding generations of practitioners, (because) their achievement is sufficiently unprecedented to attract an enduring group of adherents away from competing modes of scientific activity, simultaneously, it is sufficiently open ended to leave all sorts of problems for the redefined group of practitioners to resolve." Yet to many it seemed that having been involved in the establishment of one alternative paradigm to orthodox geography, Harvey immediately set out to establish another.

4.2.4.

Further Kuhn suggests that there are five dimensions to a paradigm demarcation. The first is the political dimension, the second is the dimension from philosophy, the third is ontological; in so far as it is concerned with reasons and causes; the fourth involves a methodological

dimension, in answer to the question; "What are the appropriate methods needed in order to explain the nature of the chosen paradigm?" In 'Explanation', Harvey had glossed over many of these areas as non-problematic. Fifthly Kuhn raises a vital difficulty concerning the 'scientific community'*, where he discusses not socialization into the community, but the division of labour and how it is socially maintained.

These five dimensions are the five that are the substantive points at dispute throughout the contemporary history of geography's search for identity. They pose questions when they are inter-related. Questions of this order. "What are the politics of knowledge and control in geography?" "Is geography a physical science or a social science, or both or neither?" "Are geographers artists, measurers, or solvers of problems of reality?" "Are geographers interested in social space and its impact upon people, and what forms of change are generated in or by social space?" "Or are geographers interested in descriptively studying social space relationships?" "Are they interested in social space at all?" Finally there is the problem of "Where did these categories derive from?" The nature of space is both physical and social, but as geography sets the study of each into different paradigmatic formulations, then each form subjects itself to the five dimensions of dispute that Kuhn puts forward.

4.2.5.

The categories that concerned geographers since Varenus were those that derived from the understanding of space through the modes of physics, and the case for these categories being operated as physical entities culminated in the quantificatory methods stressed by Burton; such a choice indicates a political choice which Harvey suggests* is a liberal one. But irrespective of a claimed political bias one may argue against the existence of geography as a purely physical science, of physical spatial relationships that lead to predictions, because the social sciences had placed doubt upon such claims through three questions. The first asks simply, "At what point does geography have actors with aims and intentions that relate to the subject matter of their discipline?" The second requests to know, "What are geographers doing?" And the third, "If one accepts that geography needs explanation in human terms, then why should the tools of the physical sciences apply to the case at issue?" This relationship that Kuhn had stressed

concerning the intellectual and social sides of any discipline offered to Harvey a second motivation for re-examining his previous work. In any discipline with human appendages, human subjects, either as actors, participants or observers become part of the explanations. Alasdair MacIntyre* when considering, "How are beliefs related to actions? Does what men believe alter their actions so as to make a difference to their social life?" decides that "the thesis that the limits of action are the limits of description, that the delineation of a society's concepts is therefore...the crucial step in the delineation of its social life." Therefore "it follows that the analysis of an ideology must always fall into three parts: we have to identify what the ideas and beliefs are which compose it, we have to identify the kind of limits which they place upon action, and we have to examine what are the consequent means by which it either keeps open the way to rational criticism or attempts to prevent criticism which does not fall inside the established conceptual frame work."

4.2.6.

The relationship between beliefs and actions suggests that in studying the space that is occupied by actors, or studying space for the improved information of human subjects, then geographers ideas relate to the ideas of significant others, for whom, or of whom their work is concerned. Therefore a mutual conceptual framework has to be established, in order for both parties to relate to the study. Both or either human subjects, then influence the explanation, and by influencing the explanation become part of it. As this is the case, then what is the point of believing that the orthodox macrological views of descriptions, (viz. of regions) or quantified relationships (transport networks) are value free upon the part of the geographer, or upon the part of the described or quantified actor within the explanation? Actors in the social setting is the third influence that reformulated Harvey's ideas* for he states, "The notion of a one-dimensional man living in an urban non-place realm was explicitly rejected and in this I am in entire agreement."

4.2.6.

If asked, social scientists might well consider that the major work of what geographers are doing is to contribute to an ongoing debate concerning duality, organisation, intentionality and rationality. The matter of debate concerning duality has been common to geographers for

some Varenian time, but sociologists took up the matter at a different level * as Dawe * wrote, "There are then two sociologies: a sociology of social system and a sociology of social action. They are grounded in the diametrically opposed concerns with two central problems, those of order and control. And at every level they are in conflict." How many geographers in their concern for understanding have not intuited that their dichotomy debates were not really about categories of different orders? Dawe continues, "The first asserts the paramount necessity, for societal and individual well-being, of external constraint; ...The key notion of the second is autonomous man, able to realise his full potential and to create a truly human social order only when freed from external constraint." Whitehand's paper is a geographer's attempt at the former, but do the 'Peninsular' and the 'Ulster' paper approach the latter? Then Dawe suggests, "The problems of order and control are problems of value...it is to say that values play a much more pervasive role in sociology than is allowed by the conventional wisdom of value-neutrality."

Dawe by arguing for the recognition that dualities pose questions concerning different orders of values, created a major response which suggested that analysis would offer a key to understanding, as Robertson implied * with, "If anything about sociology is crystal-clear, it is that it exhibits low degrees of analytical consistency, continuity and consensus." The suggestion being that when applied to geographers arguing about dualities, they assumed that the differences concerned content, but in reality concerned only values.

4.2.7.

It is possible to view geographers' work, from an action frame of reference, implying different organisational connotations, involving a notion of autonomous man. Silverman outlines such with great clarity * because, "while behaviour may be viewed as a reflection of the organisational structure and its problems,...it is equally valid to suggest that the organisation itself is the outcome of the interaction of motivated people attempting to resolve their own problems...the environment in which an organisation is located might usefully be regarded as a source of meanings through which members defined their actions and made sense of the actions of others."

An action approach presents seven propositions, which are:-

- 1) The social sciences and the natural sciences deal with entirely

different orders of subject-matter,

- 2) Sociology is concerned with understanding action rather than with observing behaviour.
- 3) Meanings are given to men by their society.
- 4) While society defines man, man in turn defines society.
- 5) Through their interactions men change social meanings.
- 6) Explanations of human actions must take account of the meanings which those concerned assign to their acts.
- 7) Positivistic explanations, are inadmissible.

The organisation in which a geographer operates is a system of human interactions, and at the simplest level a 'human' geographer is only mapping out these propositions of action reference.

4.2.7.

Wittgenstein * termed "meaning" an 'odd job' word which is called upon to perform a variety of tasks. If geographers need explanations in human terms, then they need to consider the factors of intentionality and rationality that are encapsulated within meaning. The moon does not intend to orbit the earth, the weather does not intend to bring us variety, plants do not intend to grow, nor do volcanoes intend to erupt, these are just natural events. Weber* considered that the 'specific task of sociological analysis, is the interpretation of action in terms of subjective meaning.' The meaning of a human action is in the actor's intention, his purpose, his motive, or his 'reason' for carrying out that specific act: understanding is only as complete in so far as another understands the actors' reason for carrying out his act. Consider the intentionality of a map where the centre of the geometric world is Greenwich; the intentionality of the 'Peninsular', the intentionality of Whitehand's paper, and the real and the implied intentionality concerning the paper on 'Ulster'. As intentionality runs from research into meaning,* so do notions of rationality, which substantiate the transmitted values, because they arise from the same sources of meaning.

4.2.8.

which

Weber distinguished four types of social action/are rationally based. There is traditional action, which is a customary, almost automatic action within a social relationship. Affectual actions are those determined by the actors feelings. Value rational action is orientated

towards some absolute end, such as beauty, human freedom or virtue; the means towards the end is not always connected with it, and there is no guarantee that the end will be achieved. Instrumentally rational action may also be seen to be technically purposive action; this is action determined by the actors employment of means towards specific ends, which involve the expectations of natural phenomena as they behave, and the expectations of social actors as they act.

Dudley Stamp's plea, "We have our maps!", is an example of a traditionally rational action. Michael Chisholm's remark, "The Marxist method of dialectic, passes my understanding, it seems to be as a metaphysical belief system and not a mode of rational argument", is an example of rationality determined by the actor's feelings, and thus affectual emotion. Harvey's justification for two halves of 'Social Justice and the City' is a clear example of action derived from value rationality. Whereas the actions of the innovators of the quantitative 'revolution' were clearly technically purposive, thus being instrumentally rational actions.

4.2.9.

"Social Justice and the City" attracted critics. When geographers have utilised this material they have apparently been offered choices of different formulations of the same problematic areas. But their choice outcomes are partly determined by the values that they bring with them in addressing the text. The choices of critique that they adopt are reflections of the prejudices that they bring to their reading, together with their personal notions of how society is. Harvey seems to have laid a carefully prepared and considered trap. To question the book and the concepts that the book examines, is to question one's own attitudes to geography upon a wider field than geography had previously considered to be within its disciplinary scope. If one is to seriously unpack Harvey's "Social Justice", then one must be prepared to examine one's own philosophy of geography, and further examine and justify one's own values as part of an explanation. "Social Justice and the City" is an invitation to write a synthesis for a new paradigm. The juxtapositioning of socialist and liberal formulations concerning urbanism does not offer a choice of material to choose from. There is no duality of the Varenian division. The two sides of the coin are part of the same whole, one can not walk away with the tail and reject the head. The major problem is to use the material without

falling into the trap of believing that one has a choice of either, or. Various scholarly entries into this arena have been made, but few quite so disastrously as that of Coates, Johnston and Knox, * in "Geography and Inequality."

4.3.1.

Coates, Johnston and Knox have a general thesis to the effect that, "We live in an unequal world," to which they address "Geography and Inequality." Although their concern is with the spatial dimensions of social inequality, they stress the the "causes, consequences and manifestations of inequality are dominantly structural rather than spatial in nature." This Parsonain social division leads to choosing the liberal formulations from Harvey as references in order that their material from the Registrar General relates to the measuring of the quality of life. The spatial emphasis upon inequality is required in order to defend a thesis concerned with measurement, that will bring both inequality and equality within the reach of number. As soon as the structural content is lost from the thesis, then so is the synthesis of ideas that Harvey was suggesting. "Geography and Inequality" begins with "a discussion of the concepts of quality, well being and need, and the problems involved in measuring the 'quality of life'...certain patterns emerge and are explained in terms of three broad sets of reasons; the division of labour, accessibility (of resources), and territorial division (or areas of administration)." Harvey is quoted as referee * and an interesting twist is given to the axiom, "From each according to his ability, to each according to his need," as follows"...we have already seen...how difficult it is to establish an adequate definition of need...it is the overwhelming consensus...in most societies, and certainly within the Western world, equity is generally identified quite simply with equality, which prompts the perspective on inequality which is adopted in this book. Accepting then that equality approximates to equity, there is a number of well developed techniques to which we can turn in evaluating spatial distributions."

4.3.2.

Any difficulties arising from these assertions are clarified in the graph of the distribution of taxable incomes in Norway for 1971, via the formula:-

$$G_x = \frac{\sum_{i=1}^n (x_i - p_i)}{2}$$

But this not unexpected reductionism of words and meanings was prejudiced by bringing their own notions of theory, space, knowledge and modes of scientific enquiry to bear upon Harvey's philosophical discussion, that was already beyond the reach of numbers. The skills of mathematical techniques are difficult to turn into meaningful words in the forecasting of the weather, when the satellite photographs are at hand. Meaningful explanations of the weather are difficult enough under these circumstances, let alone a correct forecast of what will take place in the continuous future. A quantified definition of 'need' seems implausible: when Shakespeare tried using only mere words, his King Lear managed just, "Oh, reason not the need! Our basest beggars are in the poorest things superfluous." To quantify need fixes a whole range of qualities in a moral way. The formulae of Coates et al refer to natural science, logical positivism * and a structural functionalist society. These three nomothetic geographical attributes indicate that if one applies a law, means that the law will hold good for the future and that the same social conditions will hold true in the future. Consider this logical train: A definition of inequality, through some consensus; an overwhelming consensus, but only in some societies, or only most Western societies gives rather uncertain certainty as a premiss. From this premiss, one may positively assert that equality = equity or conversely inequality = inequity, and upon this firm, reasoned and logical base for a philosophical triviality, Coates et al., can apply their well worn quantophrenic techniques. The effects of politics upon social justice is relegated to a minor conclusion. But the critical failure was that Harvey's discussion of the nature of knowledge, had clearly pointed out the errors in attempting to quantify human values, and Coates et al., trapped themselves by regression into a well known technique, instead of searching for an epistemological advance.

4.3.3.

A careful look at the trap in "Social Justice and the City" was taken by James Bird in "Centrality and Cities"*. He clearly read and

understood the implications of choosing from either a liberal or socialist formulation, and chose to avoid making any choice. His theme was to consider the nature of centrality as a concern of geographers, and to use the notions of urbanism as examples of explanation. He uses Harvey's material as a comparison in the form of an antithesis to the Adams - Wheatley thesis * concerning the development of cities. When Bird analyses Harvey's reasoning for the founding of cities * he uses the view of the foundation of cities through the forces of religion. The primary object of Bird's exercise seems to be a return to the Kantian proposition that "the human mind has built into it a spatial schema which serves a purpose analogous to that of the graticule on a map projection". He sees spatial co-ordinates arising from layered graticules that inter-web on levels of information, experience and expectations. This model highly influenced by Karl Popper and Levi Strauss appears to be a 'necessary escape' from Harvey's confrontation with politics.* The spatial co-ordination of information, experience and expectations is in the geographical terms that Harvey introduced through "Social Justice" now a political co-ordination. The major difficulty in Bird's "Centrality and Cities" is to decide whether the work constitutes a political examination of space. The title rules out the possibility of an a-political approach to the subject, yet the structure of the book claims that from the nomothetic form of centrality, one may study the ideographs of cities devoid of political content.

4.3.4.

A different approach towards the thesis put forward by Harvey in "Social Justice" was that of David Ley. *He examines these propositions, that quantification as a response for an adequate geography cannot extend far beyond the limits of numbers; That Harvey's call for a political commitment within geography is so wrapped in facts and values as to make the political option little more than a personal wish; that the data that Harvey presented should be examined in an a-political manner. Ley's problem is that he cannot accept a Marxian interpretation of social life, but realises that the problems to which Marx addressed himself are genuine problems. If his feelings are in tune with the socialist formulations of urbanism, that Harvey examined, then they are more in tune to the solutions envisaged by the very early Christians, before the evolution of the Christian bureaucracy, than to the solutions suggested by Marx. His solution therefore lies through a

phenomenological enterprise into urban geography. Ley analysed the works of Marx to which Harvey gives reference, and through examining the bias of the choices of material that Harvey had used, implies that the meaning of the Marxian notions had been misconstrued. This approach avoided the obvious attack ad hominem, but implies that this could be the case. Ley followed the expected pattern of confrontation of beliefs between the phenomenologist and the Marxist sociologist. Firstly one examines the overt bias of the other, and then reduces the sociological content under examination to macro and micro social systems. The division of the nature of the subject matter under discussion is then set out into an ideographic portion and a nomothetic portion as shown by Silverman in the previous section. (4.2.7.) This then destroys Harvey's appeal for structural unity within the subject matter. Secondly the major gap between the two forms, theism and atheism may be examined in the theist limits of a phenomenological ideograph. However only the human content of geography is open to examination by the phenomenologist. Thus Ley fails to confront the nature of scientific enquiry, and avoids the major contribution that Harvey proposed. That is, that a geography in a social and political vacuum is impossible. Harvey may be wrong about Marx, and perhaps Marx is not the solution to the problems of urbanism in the Western world, but there is now a political dimension to geography. Further the world is not a mere phenomenon, subjective in all its dimensions, there is a genuine place for a natural science of things.

4.3.5.

A fourth dimension of criticism is through that scholastic work by Gregory.* His problem is manifold, but his intention in "Ideology, Science and Human Geography" is to "question the many assumptions of quantitative methodology, and above all to reinstate man into the study of geography."* His position in the scope of geographical theory is taken to be a positivist stand towards phenomenology. His solution to his problem is to avoid any acceptance of Harvey's suggestion to examine the dialectic, or of Mackinder's request to establish a bridge between the sciences. His method of explanation is to state that there is more to theory than positivism and deductivism. Then to proceed to an eclectic collation of all that has gone before. He seems to say, "We must do everything, so we must write everything and say everything that is available." He looks at all the schools and traditions of previous

geographies, and produces nothing except sheer eclectic confusion. Then having 'put everything together' he defends the region in which he has chosen to perform as the area of his ideological concern. The defence is against Harvey's 'holist' geography on the one hand, and the positivism of the quantophrenics upon the other. Firstly he stresses that geography will become a much more difficult enterprise, if geographers move into criticism or awareness of the nature of philosophies. Secondly, following the social analysis of Silverman, he re-labels the theoretical trends in contemporary geography.

4.3.6.

His concern about the introduction of philosophy into geography stems from his acceptance that the natural sciences and the social sciences are totally opposed in both form and content. If a study of philosophy were to undermine this basic assumption, the Varenian gap might be bridged. A unified discipline might result, which would show the weaknesses of phenomenology. Or as Gregory terms this, the discipline would become a branch of philosophy and geographies might disappear. His relabelling classifies "Social Justice" as radical geography, whereas his own theorizing he labels as "critical geography", which he feels he has presented as an assertion, having first demonstrated the inadequacies of "traditional geography". This latter group being the present paradigmatic mixture of quantification and regionalism. It is not the re-labelling of geographical thought that is interesting in this formulation, but the positivistic assertion in this thinking, when the book is addressed to the inadequacies of logical positivism and its malinfluence upon geographical theorizing. "What I am saying," claims Gregory*, "is that a critical geography must see it as an important political task to resist the integration demanded by the relative...therefore it cannot afford to model itself on the natural sciences." This statement of his own values leads directly to his judgements of the problems concerning 'traditional geography.' Gregory is at pains to stress the timidity of other geographers. In his first two chapters he attacks with aggression, the positivistic forms of prior geographies, but in "Geography and Critical Science", his third chapter, he marks out his own timidity, that leads into the final eclectic confusion of this book. Gregory proceeds from Husserl to Schutz, in a standard manner, but then introduces hermeneutics. This extraction of the interpretation of the Scriptures, stresses the positivistic ideas of human behaviour, not the

ideas of human action that is the usual argument into phenomenology. This deterministic trend in explaining human interaction seems contrary to all that Gregory has previously been arguing for. The rest of his book is a request to place all geography, as human geography into the sphere of the social sciences. His ongoing aim is then revealed, his intention is to write a regional geography, in order to examine the praxis of his thesis. This is because he sees the task of the discipline "of ceasing to hide from open encounters with the theories which direct geography, or from the practices which sustain it." *After such attacks upon all other geographies, it seems a timid retreat to revert to regionalism. However he argues a case for such a retreat, through the needs of a duality in geography, a non inquiring philosophy, a new paradigm of critical hermeneutics, and a positivistic, deterministic base to human behaviour as seen inside regional boundaries.

4.3.7.

Gregory presents a confusion of the nature of theory in his attempt to avoid the difficulties of examining Harvey's suggestion that one should examine philosophy, and not separate it from one's methods. Harvey extended a challenge to geographers in compiling "Social Justice," and there appear to be six responses. The first is to consider the work as meaningful and attempt to extend it, as in the case of 'Radical Geography'*. The second is the approach that Gregory seems to have taken: to consider the propositions of the text and to offer a limited, but detailed response to parts of it, whilst trying to subdue the Marxist definition of society. The third is to use an extract from the book correctly, but as an example of a different set of reference terms, as used by Bird. Fourthly, one may seemingly take the spirit of the text, turn it upon its head and quantify it as did Coates et al. Fifthly, one may quote from the examples of liberal formulations as used in the first part of Social Justice as if they expressed the total content of the work, which is the 'damn with faint praise, assent with civil leer'* technique of those who would undervalue the book more openly, as in Chisholm's "Harvey wants us to embrace the 'Marxist' method of dialectic. This 'method' passes my understanding; so far as it has value, it seems to be as a metaphysical belief system and not - as its protagonists proclaim - a mode of rational argument."* Sixthly, geographers appear to have ignored Social Justice, because it points to the nature of geography as being the basic discipline of all interdisciplinary

essays into meetings between the social and natural sciences.

4.4.1.

There are three status conditions of revolution, according to Harvey* status quo, counter revolutionary and revolutionary, which mediate the problems and solutions that a discipline derives from a study of reality. Each theoretical conditions may change its categorization through time and change its mode of application. The bourgeois political state has existed through all these categories. In geography the following time scale has relevance: 1952 *"...for the next decade at least, there will be increased prosperity and plenty...there will continue to be decreases in the hours men have to work, accompanied by an abundance of leisure for many." (Man's Role). 1964: *"...There are two particularly bothersome problems in treating geography as science. The first problem is concerned with the role of description in geography, and the second with the predictability of geographic phenomena." (Theoretical Geography). 1972: *"...Within every political entity there exists a constantly changing mass of organised and unorganised social interaction...Because political geographers cannot achieve omniscience, this mass of interaction must be simplified so that it can be perceived more clearly...functional boundaries are required." (Human Environment). 1978: * "A geography of the life-world must therefore determine the connections between social typifications of meaning and space-time rhythms of action and uncover the structures of intentionality which lie beneath them." (Ideology).

4.4.2.

In this span of a generation there has been a reformulation of theories that geographers consider relevant. These quotations represent claims to revolutions. The 1952 division of knowledge into retrospect, process and prospect may be seen now as a status quo situation of the redundant orthodoxy, at the time it represented a massive advance in explanation from the geographic form of "The Peninsular". However the 1964 formulae of Bunge was revolutionary enough to sweep all of 'Man's Role' into the dustbins of 'two bothersome problems'. By 1972 the human content of the equation had been realised in terms of social interaction, but the solution was to simplify and structure functional boundaries, in order not to rock the quantitative boat; but also ideal types

for explanatory purposes were introduced. This was not a return to the status quo, nor counter revolution, but just testing the stresses and strains in the quantitative 'paradigm'. The nature of the changes in philosophy within each development is important in that it shows the intentions of the actors who might have an interest in the pursuit of change. There can be nothing but commendation for the notion behind the 1978 extract. But ideas cannot be sustained merely as a string of words, there are implicit conditions behind them. If Gregory intends to proceed from this notion into a restructuring of regional studies, this will be reductionist geography based upon futile micro-studies whilst he searches in vain for a methodology. If every nuance of the spoken word is equally meaningful for the phenomenological record, then what type of geography may emerge from the inane gruntings of any street corner drunk who may chance to offer one directions? This he must already foresee, by his self imposed limits to only human geography being of relevance. This will constitute a quasi-revolution, an attempt to return to the status quo of the 1952 form. Just another attempt to seize control in some shabby internal battle of reformulating the vocabulary of the discipline.

4.4.3.

If however Gregory intends to lead a positive reaction to the pursuit of numbers and attempts to 'bring the men back in'* then there is a possibility that by restructuring the views that geographers have about the relationship between humanity and sciences and ideas (this reversal of order is imperative to create a meaningful relationship*), there is a possibility that he may enter the area of dispute that Harvey indicated and launch a meaningful revolution of people facing the changes on the earth. Finally if the activity of change is confined only to human geography, the geographer enters an immediately determined situation progression: each statement that he makes concerning humanity, is a discussion of a social situation, all social situations derive from political conditions; human statements are political statements and excepting for quantified numerical inferences, statements in human geography are statements of political bias. Based upon one's own political views, the statements of other geographers may be seen as revolutionary or counter-revolutionary or pleading for the status quo, whatever may be the intentions of the significant other in the exchange.

4.4.4.

In his book "Structuralism", Piaget concludes that the search for structures cannot but result in interdisciplinary co-ordinations. *Harvey suggests that this conclusion should be inverted so that an interdisciplinary theory with respect to, say urbanism has to resort to operational structuralism in the method which Marx practices and which Piaget describes. The method to deal with interdisciplinary problems is therefore founded upon a properly constituted version of dialectic materialism as it operates within a structured totality. This not being fully exemplified in "Social Justice", one has to wait for Harvey to formulate an example. Harvey did, however, put forward ideas worthy of consideration at a seemingly less politically emotive level. The traditional divisions used by geographers between theory, methods and philosophy were used to construct the web of chapters that form the parts to be examined in "Social Justice and the City". This web influenced those who used Harvey as reference. Coates et al. seem constrained by choices of theory, they rely greatly upon methods, and show little philosophical depth in their investigation of inequality. Bird seems to shy away from philosophy concerning either centrality or cities, but substitutes psychological interpretations for it. Although he shows clarity with regard to methods, he is constrained by the limits of theory drawn from the ideas of central places. Ley and Gregory both seem aware of the implications that methods and theory have for their examinations of the nature of geography, but their assumptions that phenomenology might offer both a philosophy and methodology for geographers seem confusing. However they do pose certain difficulties. Harvey is aware of the problem of the social construction of empirical data, but Ley and Gregory pose the problem that "if data is socially constructed, then what data can we rely upon?" Further to which is the difficulty of "therefore what data do we have to question?" Ley further suggests that geographical data should be more clearly analysed, and "if data is totally soiled by capitalism, what data is left for a Marxist to use?" Yet Harvey's suggestion that geographers should re-appraise their views towards theory, methods and philosophy in a holistic manner is beginning to bear fruit, whatever the outcome of geographers ultimate constructions of reality.*

4.4.5.

Theoretical change in contemporary geography has been based upon the

triquetrous notion that knowledge = power = control = knowledge and that legitimate power would arise through the acceptance of an overriding paradigm. Harvey's introduction to a humanistic view of the world came too soon for the paradigm claims of quantophrenia to have established themselves. Therefore he was at first ignored, and then attacked. The Weberian relationship between social action, knowledge and the attempt to legitimate an academic power base, suggests an entry into a sociology of geographic knowledge, starting perhaps at the point of asking, "How much of the present chaos in contemporary theories is due to attempts to fill the vacuum of control that the quantificatory 'paradigm' failed to gain?" But there is a range of inconsistent philosophical attitudes taken by the orthodoxies at present vying for control that have not been analysed; many assume that the subject material of geography is not problematic, nor is it problematic to understand the subject material. These assumptions have allowed the substantive inroads of phenomenology into the discipline. The subject material of geography is society, seen as a structured human interaction; human geographers write about society, in their own terms, and physical geographers write for society*. This may be reductionism to semantics, if one claims that 'some write about it, and some for it', but this is reification, because one fails to equate with the meaning of society by reducing it to an it. All geography is involved in human explanation, and the present tools used by groups within the discipline do not fit the cases at issue. Harvey's search for sharper and more analytical tools had to be ignored because geographers largely failed to realise that their current modes of explanation and materials were key problematics.

CHAPTER FIVE: CONCEPTS AND UTOPIAS.

And the light shineth in darkness; and the darkness
comprehended it not.

John 1 v.5.

5.1.1.

The previous four chapters have considered a number of questions. Nationalism from which contemporary geography fulfils the need for explanation. Contemporary geography is as a plurality of orthodoxies stemming from the Varenian paradigm. Contemporary geography searching to explain internal values through social theories, and geography in quest of social and moral philosophies. These are questions concerning, space, scientific enquiry, theory and knowledge. These questions raised by Harvey in "Social Justice and the City" require answers that will constrain any future geography. Geographers will have to make sense of the values that they have, through further examining these central themes. The requests by Harvey and his critics are in general addressed to geographers as prescriptions for a re-examination of the fundamental bases of their discipline. Such requests may be dismissed as ideology searching for Utopia, but if a fresh insight upon the ideas from which geography stems is available, then some form of Utopia may be a little clearer. Any theory of geography concerns the use of themes, and the themes that Harvey suggests should be of concern; because they are the present problematic concepts; are space, theory, scientific enquiry and knowledge. All of these themes contain values, and if the argument goes further then these values are treated as systems. One way of talking about these alternatives is as social idealisations, which are Utopias.

5.1.2.

The notion of space presents two qualities, both of which have tangible and intangible aspects. Quinton *suggests that one should consider space in the spheres of substance, knowledge and ideas. The substance of space has qualities and properties, both ordinal and positional, yet the quality of apparently indiscernable individual units of space is that these units are individual; like the spaces between sugar beets in a field. Positional points in space also indicate individuality of substance. A simplistic view of space is that there is nothingness, but as a navigator would insist, there are theories as to points of reference, which project to notions of indicators and therefore existence: to sail in a small boat between reefs in thick fog without navigational aids, but only the pilot 'knowing where he is to', is to experience the moving dimensions of space; which suggests that space relates to the general idea of being a 'thing'. Therefore space has identity, and

substance from which one may project that there must be forms of spatial continuity, giving an interdependence between things and places which is mutual. Having established that space has some identity, and then the objects that habit it also have identities, then the progression is to example external qualities, infinite qualities and personal qualities. Against this analytical arrangement it has to be realised that any description, explanation or attempted understanding as to the substance of space takes place in a temporal plane; the juxtapositioning of time with space being necessary to any exposition of ideas. This would be a preliminary outline of an analysis of the substance of space as a tangible thing. One would then proceed to consider both knowledge and ideas concerning space at a level of tangibility, and then consider the intangible qualities of space in relation to substance, knowledge and ideas. This process would show at a primary level just how problematic the concept of space has become, without the mixing of the concept with those of theories, knowledge and science, which has become a present difficulty in geography. The basic tool of geography, the map, relates to both ordinal and positional space. Yet the matter of a map is decided by the value judgements of the cartographer. If everything were included the map would be a two dimensional plan of reality. Exclusion and inclusion of items and their positional relationships both determine the nature of the map and the values expressed by the cartographer.

5.1.3.

Of course, one could only put forward a theory of geographical space from the viewpoint of whichever chosen Utopia that one hoped for. Choices of Utopias indicate the value laden nature of geography. I believe that the destiny of geography is to create the bridge that Mackinder suggested should link the natural sciences and the cultural sciences. Those who consider that this is too lofty an aim or that it is too remote from reality, have missed the opportunity of the materials at their disposal. They cannot claim excuses of involvement in some technique that occupies time, or lack of research into the knowledge of other disciplines that is at present available. Excuses to avoid involvement in this task, imply a political self interest of a sectarian nature. As the phenomenologists would suggest one should examine the individual biases that lead to their self interest. Mackinder's bridge is the establishment of a new paradigm through dialectics, that Harvey

has suggested. To use Gregory's labels, 'traditional geography' has a vested interest in keeping the status quo of argument between quantophrenia and regionalism; whereas 'critical geography' would have everyone busy seeking the phenomenological grail in a counter revolution. The bias of 'radical geography' is still difficult to determine, but much of the movement seems to be a middle class antipathy to the status quo within the present sociological situation, which is not always biased towards revolutionary change of disciplinary thought.

5.1.4.

Geographical enquiry has different forms which show most clearly through the use of explanations. A form of explanation brings with it certain values, even at the level of having chosen which explanation one deems most fitting. In argument one may attempt to explain an event, and in doing so, one may predict that under the same conditions, the event will occur again. The reoccurrence would then test the explanatory prediction. The route to understanding such a law-like event is explanation - prediction - tests - law. In contrast one may explain the actions of another who believes that the reasons for his action are correct, and therefore justify those actions; if one can make intelligible rules on which that person has made the judgement that his reasons are correct. This route to understanding is then of explanation - belief - justification leading to a rule. *As Weber explained at length, in human action, reasons are intentions. Intentionality is the quality that separates the behaviour of things from the behaviour of people. As a quality, intentionality is not quantifiable. Geographers who are capable of fulfilling their explanations through general laws tend to be those who have established mini-disciplines in their own right. Often far enough to the right to take their work outside the discipline of geography. This was the case for geology in 1887, according to Mackinder, when he pointed out that of a given feature upon the earth, geology could only ask, "What riddle of the past does it help to solve?" Whereas geography should ask, "Why is it?" "Where is it?", "Why is it there?" and "How does it act upon man in society, and how does he react on it?" Obviously the riddle of the past, that geology explains, may be explained through general laws, the law being the prediction upon which one establishes an explanation. But the conditions to be fulfilled in order to generate Mackinder's geographic explanations move continuously away from laws to explanations by rules.

5.1.5.

If we take a geographical feature as a river, chance is that the geology of the watershed has already been mainly written. Under similar geological conditions, it would be possible to find another similar river, but to arrive at the 'Why is it?' one would have to find climatic conditions for one river which would vary for the second. In approaching the 'Why is it there?' the resultant geomorphological factors emphasise the differences between rivers. The factors of geomorphology are more recent and variable than those of the geological foundations, therefore one moves away from the predictable certainty of general laws. *Arriving at 'Where is it?' one has to confront the factor of uniqueness; the river has to be given exact locations in space and the only exactitude concerns points a to z of the river which may not be located anywhere else in space at that time; all other points in space exclude these unique places, at a given time; for rivers have a propensity to move across and into space over time. 'Why is it there?' may be an explanation from physical geography alone by reference to general laws or to human geography by reference to beliefs. But in order to establish how a river acts upon man in society one must ask whether general laws are in any way appropriate, because most notions of society are those of associations of beings living under constant change; whilst explanations of how people react towards rivers cannot be explained through general laws. *People may dam rivers, rivers may flood people, and people may divert rivers according to their purposes, but none of this takes place upon the abstracted knowledge of nomothetic laws. Consider the river as a geographical feature in space, it is determined in its genesis by the values of the beholder. To this Mackinder asks "Where", "Why?" and "How?" questions. To these questions answers can be given without the people in inter-action with the river being affected. This is not physical geography alone because if one is not ostensibly referring to those people, none the less the description of the configuration between river and people, relates to the people who describe this inter-action. What one says about the river is concerned with the interests, intentions and values of those physical geographers who deny a human dimension to their work. As Mackinder said, this dimension must be recognized, because these are the hidden values of the class that underpinned the "Ulster" paper.

5.2.1.

Mackinder was clearly aware * that explanation in geography had to range from the possibility of positivistic law at one extreme to the vagaries of the semantics of rules; or the rules of semantics at the other. He illustrated this with two pertinent examples. When he wrote, "Let us try to construct a geography of South-eastern England which shall exhibit a continuous series of causal relationships,"*, this was not a chance choice, but a deliberate example of a deterministic model given to show the connection between effects, causes, laws as shown in a value-neutral science. This he later juxtaposed with, "Of late it has been a commonplace to speak of geographical exploration as nearly over, and it must be recognised that geography must be diverted to the purpose of intensive study and philosophical synthesis."* This was his opening gambit in the Geographical Pivot of History. He then proceeded to outline a value-laden science with, "It appears to me...we are for the first time in a position to attempt, with some degree of completeness, a correlation between the larger geographical and the larger historical generalisations." Here is a suggestion of choice, the element of free-will, in which Mackinder is searching for rules not laws, and in order to give reasons for these connections he explains by citing actions. His aim was to establish logical connections to show that "Man not nature initiates, but nature in large measure controls."* In his aim to explain he thought "It is obvious that only a first approximation to the truth can be hoped for," which is more than many social scientists yet hope to achieve.

For the proper understanding of the balance of a meaningful whole explanation with a causal dimension and an action dimension, Mackinder considers the "Gwents" or "Ventae". These are the chalk uplands that run from Salisbury Plain and branch to East Anglia and to Kent. They centre three cities, Winchester, Canterbury and Norwich. They settled three different Germanic tribes, Angles, Jutes and Saxons because of easy access to the uplands. Geographically the Fens isolated the people of Norwich, and the Weald forests isolated the people of Kent. Historically the "men of Norfolk" and the "men of Kent" have been of a remarkably rebellious disposition.* The geomorphological dimension is not a determinant of the human action dimension, but there is a causal connection.

5.2.2.

The nature of scientific enquiry in geography must range across a spectrum of explanatory forms, each of which is adequate to only a partial explanation of a part of any total enquiry. The disciplines outside the nature of geographical enquiry are on the one hand, geology for the reasons that Mackinder gave, and on the other hand psychology. This latter because there is some overlap between those questions that philosophers would have one consider, and the extension of these questions into a psychological area of meanings. These questions are of the type as to whether human action is freely chosen or causally determined; how this relates to the problems posed by body or mind distinctions, which are further complicated by the distinctions between fact and value. Philosophy raises the questions as problems to be considered, psychology raises the same form of questions as problems to be solved. It does not seem that the unique peculiarities of the unique human individual have any place within geographical explanations: this must be the subjective extreme beyond which the boundary of the discipline has no need to extend. In accepting psychology into geography one must also accept the uncertainty and mythological premises upon which psychology is based. From such an uncertain belief system geography could only sink into phenomenology. The boundaries of geography exclude certain certainty, and certain uncertainty. The totality of a range of distinctive forms of explanation completes a geographical enquiry. This then is the form of Mackinder's bridge, but the form of each facet of enquiry is open to numerous modes and choices. The four simple questions, Why is it? Where is it? Why is it there? and How does it act upon man in society and how does he react upon it? merely require answers. Regional geography of the traditional form such as 'The Peninsular' answered to "What is it?", Quantophrenia, as 'Innovation diffusion' merely said how long, wide and handsome it was. The "Personality of Ulster" came close to attempting to answer all the questions, but showed political bias concerning some men in their society. Forthcoming phenomenology is not designed to take Mackinder's questions seriously, because it must start with the question, "What do you think of it?"

5.2.3.

It is clear that the forms of these questions do not determine nor dictate the form of responses to them. The types of responses relate to

the completion of a satisfactory range of scientific explanations in geography. Scientific includes the range between the extremes of natural and social scientific forms; which use either outwardly observable physical 'data' for theories containing laws, to inwardly observable subjective 'data' for theories derived from rules. But the idea of data requires clarification. The dictionary definition of datum covers a wide range of meanings, ranging from things known, taken for granted, assumptions, or premisses from which inferences may be drawn. The plural form infers that these are given facts of various kinds. The root of the word is concerned with giving and it is frequently assumed that data are concerned through the dative case with 'to' or 'for'. But there has been a corruption of meaning, in that much material that is assumed to be data, is in no way given; it has been taken. Because our modern languages no longer differentiate between the dative and ablative cases, there is a false assumption that 'facts' concerned with 'by', 'with' and 'from' are the same as those that have dative connotations. It would appear that there is a need for a stricter differentiation between data (those which are given) and capta (those which are taken) because they offer very different forms of information, arising from different bases and offering different forms of premiss. The contextual importance of the prepositions within the collection of information(data or capta) appears to be vital to the ultimate meanings.

5.2.4.

If asked by a Montenegrin peasant to where I was travelling, he might offer me the information (datum) that it was about five cigarettes away, were I to press him for greater accuracy, he might tell me (captus) that it was a couple of versts off. Different schools of geographers would range their responses to these choice items within their ranges of accuracy and expectations of knowledge. But even if all the resultant explanations did not arrive at what the western geographers would accept as 'some degree of accuracy' there seems to be a relationship between capta and theories tending towards laws, as opposed to the relationship between data and theories tending towards rules. One takes measurements from the earth, the earth does not give them to one; human beings give information to each other freely, or it has to be taken by devious means. Data is meaningful in a human context, capta is dubious as information collected from people. The two frameworks of

explanation, rules or laws, seem to contrast, and geographers in the contemporary past appear to have fallen into the misunderstanding that the contrasting frameworks make the content of explanation mutually exclusive. The bookshelves are filled with the debates that geographers have pursued, nomothetic - ideographic, landscape - landschaft, tangible - intangible, descriptive - quantificatory, and soon reality - phenomena.

5.2.5.

The matter of importance concerns the intrusion of values into the sciences. The general law model of explanation is deterministic and so denies the possibility of human choices, and hence with it the possibility of moral judgement: so it makes all questions of value irrelevant to science. This is not the case with theories following rules, which involve the exercise of choice, because these rules may be moral rules. It may seem to be possible to give a significant explanation to the 'Why?' and 'Where?' aspects of a geographical X through a value-free law but to whom is such an explanation significant? In explaining 'How does the geographical X act upon man in society?' it is the significance of what is observed that becomes important. The geographer has to take the physically observable aspects of X into a social setting, in order to make judgements that are meaningful. These found a particular subjective appraisal, because significance has to be significant to someone whether the observer, the actors or those to whom the observations are reported. At this point the geographer refers to his own set of values, from which his judgements take significance. These values are the only set available to him, and these inform his choices and examples. Consider the values of Empires that Mackinder wrote into the 'Geographical Pivot of History', the moral values that Harvey, used in setting out 'Social Justice and the City.' The haughty cultural values implied in 'The Peninsular', the religious values included in the 'Personality of Ulster,' and the values of superior knowledge included in 'Innovation Diffusion.' The cultural significance of such included values are often judged as determined facts, but in reality they are chosen illustrative and significant observations taken from material that their authors are familiar with. The material used is taken from the knowledge that they have been socialised into and becomes a crutch termed certainty. The values contained in this knowledge are illustrations of their socialisation. It would be very odd

to find Harvey using Empire as an illustration of positive value, or Mackinder referring to a flat earth, such knowledge would be out of time; historical time.

The processes involved in the study and explanation of geography are absolutely value laden. This is so in what is termed physical geography, just as it is so in human geography. When one asks "What is happening to the local populations' water?" Then the question has both a physical and a human dimension. We have to recognize that all inquiry is predicated by the inquirers aims. These may be either physical or human geographical aims, but the values are interlaced with structures from the physical environment. Hence Quantification is impossible, it relates only to things to measure: human action needs to know what people think.

5.3.1.

If the subjects of geographers society are treated as free choosing agents, then the question of the moral standing of their actions cannot be avoided. The geographer must make positive judgements, as to whether the actions of his subjects in society, and he himself towards society are right, or wrong, or have no moral significance. Consider the attitudes of geographers concerning the competitive spirit of this society; is it right, as one might infer from Mackinder, or is it wrong as Harvey seems to imply, or is it a neutral fact of human society as is either ideological, value-laden or just a social fact. However to explain our society as a collection of social facts, creates an ideological statement, because social facts concerning our society imply significance as to moral standing; because the 'competitive spirit' is taught as a good thing or a bad thing during the education of the nation's children. A general law model of explanation needs exclude the moral significance of actions, hence the requirement to reduce actions to behaviour, and thus discount the moral significance of what is observed in any resultant explanation.*

5.3.2.

There is an enforcement of a strict version of fact / value distinctions in general law models, that rule following models completely do away with. The rule following model of explanation is put forward by Searle *where he suggests and then argues that the fact of a persons' action

being made according to a social rule entails an obligation for the person who performs the act. Which he extends to the action of making a promise requires that one ought to do what one has promised. This is not without difficulty, because although deriving an ought from an is might overcome the fact/value distinction it leads straight into the difficulties of relativism in so far as morality is concerned. If one society, school or clique has such and such a rule, this does not enforce obligations from those who belong to a different group that does not have this rule. *This leads immediately to the problem of seeing biases of values in others, when claiming that peoples actions can be explained by the rules that they follow, becomes only an exhibition of one's own biases. Because if this is not true, then people are not free to follow the rules as they claim, but are in some way constrained by human nature, or determined by the environment about them. But moving outside the general law model of explanation seems to lead to various forms of circularity, vagueness and biases, which perhaps are the outcome of the scientific description of human nature that geographers have for so long deliberately avoided.

5.3.3.

The two prior sections considered the moral standing of geographers subjects and the biases that they may bring into his work. The geographers subjects bring to him the information that fills his theories. Theories are suppositions usually based upon principles that are independent of the phenomena that are being explained. Further people articulate theories related to the values that they have. If this is so then the most common theoretical device utilized by geographers, is the map. But maps have many forms, even to "that map, the one that shows the earth's surface as occupied materially by the Soviet Union and the United States, and now tentatively China, that map has obsessed my life. It proves through geography that unrestricted war is collective suicide for the species."* Previously Bunge had written "Theoretical Geography" as an appeal to American geographers to move towards physical geography through the adoption of general law models of explanation, and to extend the map into mathematics, upon the necessity of logic. Yet his extended theories do not show a logical connection between the law-like 'is' of the map through the value bias of 'unrestricted war' to the 'ought' concerning 'collective suicide'. His assertion that "the map proves the consequences of war," ignores that the scientific adoption

of theories to the structure of his map would imply that the same rigorous attitudes of science need also be applied to derive his ought of controlling unrestricted war. Such theoretical claims made in geography fail to offer proof, because no single theory referred to is capable of explaining both poles of his thesis. In order to move from the law-like statement concerning military power upon the earth, to the rule embracing the wish for stability for the species, different forms of phenomena have to be explained through different modes of explanation.

5.3.4.

The choice of which theory to use for the appropriate explanation is determined by the nature of the values and biases the phenomena under consideration bring with them. Determinism in geography has now moved from a concern with not that the geographical items are determined (as in the work of E. Huntington) but that the items determine the form of explanation that is appropriate to them. One may apply central place theories to the Dogger Bank, but these do not adequately explain the Dogger Bank in response to the four questions proposed by Mackinder. And even these four questions omit the values and biases that would be required by the fuller explanation required by "What are we explaining it for?" As society has changed during the course of the history outlined in this paper, so have the reasons given for the justification of the right for such societies to exist. The theories put forward by geographers for their geographies stem from the philosophies that justify their social existence. The philosophical underpinnings of each theory at present in use by geographers, require examination, in order to establish the claims, that each geographical theorist is arguing for. Philosophy solves no problems, it only poses them and asks for strategies in facing the problems raised.

5.3.5.

The eight concepts examined in this paper * have been deliberately separated. This has indicated that as one analyses the present problematic concepts concerning contemporary geography, in the manner of most of the users of theories, then the analysis continually divides and the problems multiply. It is methodologically possible to separate the parts from the whole, by generally describing the whole. Then specifically describing the pieces that relate to the whole, followed by further

describing the whole in detail from the collectivity of the parts, Then finally analysing the problems that remain. It may be said that this paper should have been a narrative, but as one separates the pieces from the whole as an idea, it becomes impossible to present the whole without revolutionizing the analysis into synthesis. When the idea crosses interdisciplinary boundaries, then the whole idea is meaningless until some explanation of the crossed disciplines has been given.

5.4.1.

It has been stated before that requests to geographers to re-examine the roots of their material may be dismissed as ideology searching for Utopia. Derogatory attacks of this order were foreseen by Mannheim* who suggested that there were four idealised Utopias * at least to choose from. Any attack upon one form of Utopia can only be made from the standpoint of another alternative form. When Harvey suggested that geographers considered the natures of the ontologies and epistemologies that underpin their work, and began to analyse the political form of their chosen explanatory models; then the struggle between idealised Utopias could only become derogatory. For as Mannheim said, "the word (ideology) took on a derogatory meaning which it has retained to the present day. However, if theoretical implications of this concept are examined, it will be found that the depreciative attitude involved is, at bottom, of an epistemological and ontological nature. What is depreciated is the validity of the adversary's thought because it is regarded as unrealistic. But if one asked further, unrealistic with reference to what? - the answer would be, unrealistic with reference to practice, unrealistic when contrasted with the affairs that transpire in the political arena...the word (ideology) lends support to that practical irrationality which has so little appreciation for thought as an instrument for grasping reality." The reality that exists in geography relates to the problematic concepts of space, theory, knowledge and scientific enquiry. Geography is constrained from without by the realities of culture, methods, facts and values, and the sociology of knowledge. Each Utopia requires, permutates and formulates these concepts in order to justify its own ideology.

5.4.2.

In examining and compiling the contents of this paper, three of Mannheim's Utopias have been negated, if not by argument then by assertion. The orgiastic Chiliasm of the phenomenologists offers a social revolution in geography, if one is prepared to accept the spiritualization of the politics of geography. The purpose of their effort arises through an acceptance of the tensions within the discipline, and through a refusal to accept events as they are, or control by others. When their ecstatic outbursts and energies have been exploded upon the here and now, and they have dissociated themselves from their own symbols and images, then it will be seen that the purposes that they have achieved are mundane in the extreme. There seems little point in ranting about the functions within society, if one is not prepared to question the structure. The modern liberal thought behind the orthodox and 'regional' geographers is derived from modern philosophy which arose with the purpose of removing clerics and monarchs from the control of the affairs of state. It contains an idealist mentality that is derived from a dual avoidance, firstly of avoiding the control of God over the reality of the earth, and secondly of avoiding the conservative domination over things and men involved in a time and space relationship with the world. The major concerns are with norms, forms and the regulation of a state of reasonableness. This middle road steered itself between the feudal estates and lower strata, in the past, whilst in the present it accepts the dualities of this ideal into its formulations of the disciplines. The actual process of progress is the liberal - humanitarian notion of Utopia. Change is the progress, not the process. Alteration is not permissible, because that would be revolution. It is this ideology that requires that the dualisms within geography should continue to exist, the dualities delimit the boundaries within which it is permissible to carry out exploration.

5.4.3.

Quantophrenia represents the Utopian mentality of the conservative ideal. The quantitative revolution had no predisposition towards theorizing, according to Mannheim, "This is in accord with the fact that human beings do not theorize about actual situations in which they live as long as they are well adjusted to them"* Conservatism remains latent until a socially ascendant group raises problems that might break through the existing order of things. Conservative knowledge is aimed

at giving practical control; in geography when this control was threatened by the continual process of 'change' and the gradual progress to a more analytical understanding of regionalism within a liberal framework which might extend into the control of power in the field of planning, then the conservative counter-attack was launched by a crude return to the simplest form of explanation; the reduction of quality to quantities, and the establishment of numbers as the lowest common factor in all transactions. The conservative ideal is set in reality, and other Utopias are attacked as vaporous and lacking in concreteness. Certainty, objectivity, and reality are the values that conservatism takes with it and the quantificatory revolution claimed all these. But the difficulties that this ideal has not met concern the differentiation of the essential from the non-essential, what to do with subjective material and the meaning of the end results when given as data. The object of the 'revolution' was to re-establish professional control, and as such was either a counter revolution or a quasi exercise in domination.

5.4.4.

The fourth of Mannheim's Utopias is concerned with the socialist - communist mentality to which all serious people refer back to the works of Marx. This was clearly the prescription put forward in 'Social Justice' by Harvey, and these works offer the methods by which to create for geography the 'Bridge' that Mackinder seemed so concerned to realise. The present is never the best time to turn one's attention to Marxist formulations of the past and future. Only recently * Tony Wedgewood Benn pointed out to Harold Wilson, that today to read 'Das Kapital' in English was considered by the government to be an offence, four hundred years ago, to read the Bible in English was a capital offence. However, if one is to see the contemporary concepts in geography in some form of harmony, one must search for one's own truth. As Marcuse states, "The concrete conditions for realising the truth may vary, but the truth remains the same and theory remains its ultimate guardian. Theory will preserve the truth even if revolutionary practice deviates from its proper path. Practice follows the truth, not vice versa. This absolutism of truth completes the philosophical heritage of the Marxian theory and once for all separates dialectic theory from its subsequent forms of positivism and relativism." It may be argued that to establish an introduction of a geography leading to a Marxian Utopia, then all that is

required is to borrow the geographies of countries that have already begun to move away from the capitalist order of things. As political orders establish themselves, they have to defend their power against the political forms that are closest to their own form, just as liberals must struggle against conservatism and socialism, so communism needs struggle against socialist revisionism and anarchy. The forms of social knowledge in the two forms of society, liberal and socialist are different.

5.4.5.

Firstly there is a need to analyse the relationship between geographical knowledge and geographical existence and to trace the forms which this relationship has taken during the intellectual development of geographers. The variety of theories derived from sociology at present in use by geographers negate any cynicism towards such an undertaking. There is a need to recognise that knowledge is socially conditioned and part of this is the recognition that education is a deliberate effort to deceive in the interest of political groups, education being much wider in meaning than schools, but to include all forms concerned with the transmission of knowledge. Part of the object of this education is to establish in the audience justifications for some form of ideology. Geographers have in the past been heavily involved in the deceptions and disguises that are part of this establishment of ideology, and this opinion is expressed here without denunciatory or moral implications. The actual process and content of thought may be determined by the society in which one lives, and being 'at home' in such a society, this makes the realisation of this process most difficult. The process of knowledge is deeply influenced by social processes, each problem that one formulates already has a history of being problematic, and the data, or *capta* that is brought to bear upon each problem are derived from the social sources available, which also effect the formulation of the method of solution to the problem. The historical social processes of knowledge are also continuously relevant because they give relevance to the source and meanings of ideas in a social sense rather than a psychological or phenomenological sense. The cases given in this paper so far concerning values give varying degrees of response * but all seem to mean different things to different people. When a geographer proceeds to reflect upon his work, he has implicitly 'in his mind' a socially established mode of thought, "for instance, once the typology of objects

in the natural sciences was formulated, and the categories and methods of thought derived from these types became models, it was henceforth hoped to solve all the problems by that method."*

5.4.6.

Although we may live in an "Epoch of Equalisation" this refers to a possible process not a realisation. Discussion is rarely between equals, people may be aliens in their own families, in Britain besides class and false consciousness, misunderstanding due to accentuation (not dialect) of the mother tongue does not tend to equality between persons. Communication becomes even more problematic when English is used between nations, foreign tongues even complicate the difficulties more*, but when it is hoped that understanding and mutuality of social meaning could transpose from say a Western capitalist society to an Eastern socialist society in the context of geographical theory and philosophy, then it is doubtful if the determined social ingredients that we call knowledge could meaningfully transpose.*

If an entry by geographers into Marxist praxis, method, structure and philosophy is deemed to be the opportunity to resolve their confusion of theories, Utopias, dualities and concepts, then the process must begin here. The beginning can only be by a resolution of their realisation that what at present passes for knowledge is the furtherance of a deception in the interests of those who control * the socialisation processes. Secondly they will require a meaningful and appealing geography that does not just 'talk past other people', and thirdly the frames of reference that such a geography uses would require to understand the others to whom it is addressed, there is no new paradigm likely to arise again that is based upon obscurity and deliberate methodological difficulty.

The choices that geographers make are not politically neutral choices. There is no political vacuum in the discipline, because geographers choices relate to Mannheim's Utopias.

5.5.1.

This research set out to identify problems underlying the conceptual foundations of contemporary geography. This has been approached through trying to establish the nature of contradictions that have appeared in either geographical texts or during recent lectures, together with

what appear to be inadequacies in explanation. From a recent background in the social sciences, it would seem that the problems stem from an inadequate understanding of the sociology of knowledge upon the part of those concerned with the transmission of geographical knowledge. The dualities that constitute geographic 'debate' mirror the contradictions that are social within our own international society. Consider two examples, for reflection upon in contemporary geographical modes: "War leads to mass hunger. Will contemporary mass hunger lead to war" and "What purpose does the great inequality serve, between the northern third of the world and the other two thirds?"* Dualities of this form are not explained by accepting that this is the status quo and therefore their existence is unquestioned: similarly dualities in geography need questioning as to why they should continue to exist. A request to geographers to solve this problem was made by Mackinder, a method of resolution was given by Harvey, arising from his research into aspects of the sociology of knowledge. Prescriptions often damage the interests of those for whom they are prescribed, and this has certainly been the case in the antagonisms that have been aroused. It is not the province of this paper to make a definitive statement upon what ought to be done, but all theoretical positions so far examined have great inadequacies, because geographers fail to realise that they are involved in a political enterprise at both the human and physical levels, and an understanding of what Marx is claimed to have tried to explain merely completes the range of problems that geography is now involved with.

5.5.2.

"It is a mistake to believe that there is one authentic, pure or correct interpretation of Marx's thought...There is a tendency amongst Marxist commentators,...to transform Marx into a myth."* On the other hand attempts to refute his work also "only incidentally contribute to our understanding of Marx's thought." Marx was human, and as such is not to be feared nor deified, but merely to be understood. The criticisms levelled at Harvey and the "Radicals" in present geography* are the standard criticisms levelled at Marx in the past; failure to predict, ambiguity in concepts, erroneous theories of value, totalitarian implications, which will give way to itemizing unresolved dilemmas, ambivalences and tensions within their theories. Harvey having written "Social Justice and the City", is at the point of interpretation and criticism that Marx is at. The difficulty of Marx obtaining an unbiased audience is the

difficulty that faces Harvey. But clearly it is the case that Harvey's account of reality should be pursued, even though any attempt at the present time to conduct a radical enquiry would mean using data that is value laden from other political stances, even though to condemn this data in supporting one's case undermines the argument. To use official statistics is to use material with rejected political values, even if rapid social change does affect the political bias. In a non-Marxist frame of reference Harvey's difficulties would be dismissed as the stresses and strains of the search for a new paradigm. Harvey's idea of introducing a Marxist conceptualisation of geography was a bold move in the Western world, because of emotive overtones and societies that are antagonistic to having their basic values questioned.*

5.5.3.

A severe difficulty for geographers, other than Chisholm, lies in understanding the method of dialectic materialism.* As Althusser said, "I said that Marx left us no Dialectics...I said that Lenin left us no Dialectics...Mao Tse Tung developed these,,, is an important text 'On Contradiction'* As Marx was merely human he apparently overlooked giving an authoritative version of his methodology, therefore the form that one chooses depends upon the referees that one selects. However as time has progressed there have been various interpretations of what Marx meant, and these interpretations have been influenced by the level and acceptability of social knowledge extant at the time of these interpretive explanations. The appeal of explanation through dialectics lies in the fact that one has to re-establish what factors are a-priori to one's explanation, and in so doing one needs to examine all the biases that are inherent in the values that these factors bring with them. The difficulty in a personal revolution of thought is that the process involved may be so time consuming in a theoretical sphere, that there is little time to be spilt into practice. This then makes one face the order of research; does theory precede practice, or vice versa, and where does philosophy fit into this order? Finally a socialist formulation of geography may only in truth arise from an ideology. The problem here is whether an ideology of a Marxist-socialist mentality is derived from culture, socialisation, understanding or a bent towards anarchy.

5.5.4.

However, before there is another revolution in geography, whether it is a conservative, non-philosophical counter-revolution of some new brand of quantification, or a quasi-reform of the phenomenologists turning more curbside conversations into reliable and valid data,* or a strong back lash from those who see regions and maps as the stuff of geography, or an application of dialectics to our constructions of reality there is this warning, "men cannot unmake their social relations at will and this theoretical result must be our starting point when considering the promotion of social changes...in various ways. Continuities of collective memory, customs, language, habits, norms, culture,...across vast periods of time through many different and often monumental social changes, to say the least are in need of adequate explanation. There are only aspects of society which are experienced as needing to be changed and in principle and in practice some aspects cannot be."* As geography is capable of accounting for the spatial interactions of social relationships, just as geographers have attempted to control their own social relationships, even to the extent of negating them amongst their own practioners, there comes a timely warning from Marx, *"Revolution in general - the overthrow of the existing ruling power and the dissolution of existing social relationships - is a political act...It requires this political act as it needs the overthrow and the dissolution." The so called revolutions of contemporary geography have failed, simply because the political act of revolution did not overthrow either those in control of the discipline and knowledge, nor did they succeed in dissolving the social relationships within the structure of the discipline, however much some foundations felt shaken, simply because the crude politics of control were not enough to establish a credible philosophy.

5.5.5.

Credibility of Marxist theory lies in the realisation that it is by its very nature an integral and integrating theory of society. Because of this nature there is no room left for an independent philosophy, psychology or sociology, nor sciences in the antagonistic plural. "Morality, religion, metaphysics, all the rest of ideology and their corresponding forms of consciousness, thus no longer retain the semblance of independence...When reality is depicted, philosophy, as an independent branch of activity loses its medium of existence. At best its place can only be taken by a summing-up of the most general results,

abstractions which arise from the observation of the historical development of men,"* Marcuse notes that "The fundamental relations of the Marxian categories are not within the reach of any science that is pre-occupied with describing and organising the objective phenomena of society. They will appear as facts only to a theory that takes them in the preview of their negation. According to Marx, the correct theory is the consciousness of a practice that aims at changing the world."* Mackinder drew out the boundaries of a theoretical and mature geography, Harvey pointed to the possible constructional route into praxis, and the sociologists included in this paper offer a starting point of enquiry. Which does not suggest that there should be any solutions included here, because the contribution to knowledge in this paper lies in the inference that there is no form of geographical concept that is either value or culture-free. Every form is derived from a social theory and every social theory has a political bias, so at least one may imply, "By your theories we shall know your politics."*

CHAPTER NOTES

"I recognise that I can only arrive at one aspect of the truth, and I have no wish to stray into excessive materialism."

H.J. Mackinder, 1904.

NOTES CHAPTER 1,

- 1.1.1. S.W.Wooldridge, The Geographer as Scientist.
- 1.1.2. T.S.Kuhn. The Copernican Revolution: Planetary Astronomy in the Development of Western Thought, Cambridge, Mass. 1957. also Kuhn, The Structure of Scientific Revolutions, Univ. of Chicago, 1962. p. xii.
- 1.1.3. ibid 1962, p.xii.
- 1.1.5. Francis Bacon, Essay on Knowledge. R.E.Dickinson, The Makers of Modern Geography, 1969, R.K.P. page 9.
- 1.1.6. Ernest Nagel, The Structure of Science, R.K.P. 1961.
- 1.1.7. ibid, page 606. ibid, page 15.
- 1.1.8. T.S.Kuhn, op. cit. 1962, Chapter 13.
- 1.2.5. The reciprocal relationship formulated by von Humbolt has mislead some geographers into thinking that environmental conditions determine mankind's relationship with the earth. For instance, Eyre & Jones, Geography as Human Ecology, 1960, in their introduction.
*Eyre S.R. Determinism and the Ecological Approach in Geography, in Geography, No. 225, Nov. 1964.
*Stoddart D.R. Geography and the Ecological Approach, in Geography, No. 228, July 1965.
- 1.2.6. To the question, "How does Zusammenhang translate?", there is no adequate answer in English, but von Humbolt was enquiring into 'die erschaute totalitat', the total impression. What does Zusammenhang mean? presents a problem in geographic conceptualization, and meanings have frequently been given to fit the notion to the ideas being presented by those who have used von Humbolt's works as bases for their own points of view. For instance:-
S.W.Wooldridge writes (The Geographer as Scientist, '56, Nelson, p.9.), "What then is the geographical method? The clue is given by the word 'Zusammenhang', which we find on almost every other page of the writings of the great German founders of modern geography - Humbolt and Ritter, and those of their followers. And for the present purposes I would translate 'Zusammenhang' as context. Our aim is to examine rocks, land-forms, soils, plants as well as human phenomena, in the natural contexts in area, one to another and all together."
Or from Talcott Parsons (in Max Weber: The Theory of Social and Economic Organisations. Free Press. '47. page 95, note 13.). "The German term is Sinnzusammenhang. (Sinn = mind?). It refers to a plurality of elements which form a coherent whole on the level of meaning. There are several possible modes of meaningful relation between such elements, such as logical consistency, the esthetic harmony of style, or the appropriateness of means to an end. In any case, however a Sinnzusammenhang must be

1.2.6. distinguished from a system of elements which are causally in-
 (Contd)terdependent. There seems to be no English term or phrase
 which is always adequate. According to variations in the con-
 text, (of this translation), 'context of meaning', 'complex of
 meaning', and sometimes 'meaningful system' have been employed."
 Or from psychology (Deutsch & Krause, Theories in Social Psy-
 chology, Basic Books, 1965 pp 16 & 17.) "If perception is or-
 ganised, then some aspects of perception will remain constant
 despite a change in all the elements in the situation perceived,
 so long as the inter-relations among the elements remain the
 same...then perception of any element will be influenced by the
 total field of which it is a part...then some of its character-
 istics of organisation will emerge; these will be the inter-
 relations of the entities being perceived rather than the enti-
 ties themselves." Thus Zusammenhang is used not as a synthetic
 element in philosophy, when it is removed from its germanic con-
 text, but as a justification for divisive logics in geography,
 sociology, or psychology.
 E. de Martonne, Traite de Geographie Physique, 1948.

1.2.7. from R.Hartshorne, The Nature of Geography, Ann Arbor, 1961
 and pages 142, 54, 55, 56, and 57.

1.2.8. and from R.E.Dickinson 1969, Chapter 3, although Dickinson does
 not seem to give the correct references from Hartshorne.
 Ritter was accused of presenting only a philosophical teleological
 viewpoint. Hartshorne gives reference to this (1961) in note 16,
 page 59, and pages 60 to 62, the recorded argument between Ritter,
 Frobel and comments by Leighly and Wisotzki, which culminated in
 the conclusions by Hartshorne that "His (Ritter's) consideration
 of the earth therefore logically centered on man." But one
 must take Hartshorne's point page 59 (1961) concerning the char-
 acter of Ritter's work, from Ritter's own statement of ultimate
 purposes. His notions of geographic boundaries are variable
 and his commentators have translated his notions to their own
 purposes. One does an injustice to the contributions of class-
 ical geographers by using them as present referees in an ongoing
 debate, hence the quotes given here are abstracted with this
 qualification. For as Hartshorne continues, 'Columbus set out
 across the Atlantic for the purpose of finding a shorter route
 to the Indies, and died believing it.' He contributed to con-
 fusion in geographic and ethnographic terminology, but does one
 use Columbus as a referee as to whether his journey was really
 necessary?

1.2.8. Julius Frobel, Aus Amerika, Leipzig, 1857, Vol.1. p.79, A = ✓/
 and ap. is the formula for the natural wage, engraved upon the tomb-

1.2.9. stone of J.H. von Thunen. The translation of 'von Thunen's
 Isolated State' Ed. P. Hall, Pergamon, is now used in schools
 for 'O' Level candidates in geography, Environmental Studies,
 Rural Studies, and other social sciences. Central places are
 common-place academic items at an introductory level in the sec-
 ondary school. The appeal comes from the host of questions that
 derive from simply searching for data, which the notion has gen-
 erated, together with the ease with which teachers can institute
 the search for topic material in any school vicinity, together
 with an adaptable set of methods. The depth of any study is
 limited by the time, space and ability of the pupils. An end-
 result is some form of Zusammenhang. It is the German school's

- 1.2.8. contemporary justification, across the cultures,
and *Ratzel was 'translated' into American by Semple (see American
1.2.9. contribution) which generated a dispute as to the accuracy of
(Contd)her translation of meanings. Dickinson writes (1969 p.76)

'Singularly little attention is given to the works of Ratzel in Hartshorne's 'The Nature of Geography'. Hartshorne (in 1961 ed. p.91) writes, 'In particular it is misleading to place Schluter in opposition to von Richthofen, Ratzel, and their contemporaries, as Dickinson does.' quoting from Dickinson's 'Landscape and Society. Scott. Geogr. Mag. 55, 1939.]. All this from Semple's translation of Ratzel's view of the man / environment or environment / man relationship, because Hartshorne claims that Ratzel's view changed during the writing of 'Anthropogeographie'. Vidal de la Blache, also joined in (de Martonne, '26, p.7.f.2.), The phenomena of human geography are...everywhere related to the environment, itself a creature of a combination of physical conditions as Ratzel wisely insists'. Ratzel contributed to all cultures.

- 1.3.1. There is a tie with Lyle's Uniformitarianism here through the influence of James Hutton's 'Theory of the Earth' published in 1788. Hutton refuted the notion of change through catastrophism and advanced the idea of change in terms of geological time. The earth "had no evidence of a beginning and no prospect of an end." There were consequences from this idea that appeared in the natural sciences, politics and ethics. The ties with Buffon appear to be clear.

From:- Armand; Geographie 3.

ex vulgare; There is no French race. These people are all 'white' but diverse, belonging to three different (anthropological) ramifications....very tall people with fair hair and a clear complexion, with light eyes (Nordic types). - medium height men, thickset, large head and dark hair (Alpine types). - others are small, slim, and dark (Mediterranean types).

The characteristics of the (original) French population belong to the 'Alpine ramifications', but in France, amongst the people, three variously different populations faded into an inextricable mixture where it is seldom one finds an individual of a distinctive and pure physical type.

There is no French race.

There is a French nation.

If the French are very different from one another by their height, skull formations, colour of hair or their eyes, they all however have a feeling of belonging to the same community, having in common, interests, habits, language and a common past.* They form one of the most ancient nations of Europe, amongst such nations as are aware of their unity.

National unity in France appeared early in her history.

It has existed since antiquity, it disappeared during 'the invasions', but formed again at the beginning of the X Century, thanks to the Kings of France and to the early beginning of a national consciousness, the latter being obvious at the end of the 100 years war, becoming glorified by the French revolution, which re-created France by universal assent from its inhabitants. Remember the meaning of "La fete de la Federation de 14 Juillet 1790." Language is one of the main elements of France's unity. All its inhabitants speak French. Today there is not a single village

- 1.3.1. where French is not understood. Compulsory schooling and military service have contributed to this unity. Peoples of other countries across the frontier,....speak French too.
- 1.3.2. Old formulations do not die. In the 12th. edition of 'Geographie' by A.Labaste, published by Armand Colin as the 1969 revision, the introduction to 'La France, nation et Etat' for Classe de troisieme des Lycees, is through dividing France into these regions: Les massifs anciens, Les montagnes recentes, Les plaines francaises, Le littoral, and Fleuves et rivières. Malte-Brun died almost a century and a half before this text was issued, but his rationalised explanation that the variations of lands offer limited possible choices to their inhabitants, is still acceptable in text book French geography.
*also Dickinson 1969 p.20.
- 1.3.3. 'Principles of Human Geography' by Vidal de la Blache, Edited by E. de Martonne, Constable, 1926.
* ibid p.6.
- 1.3.4. * ibid p.123.
*It is also in this Chapter 4 that Vidal infers doubts upon the contributions of the determinist, such as E. Huntington; see footnote 11 on page 119.
Vidal de la Blache, Annales de Geographie, 1913.
*It is fascinating, but too extended to quote; to read Ch.5. of 'Weber's Methodology' in J.Lewis, Max Weber and Value Free Sociology: Laurence & Wishart. 1975 and to substitute Vidal for Weber. The inputs and influences appear to be similar, the problems akin, and the philosophical conclusions interchangeable. The advantage that was Weber's was that he could avoid the difficulties that were terrestrial and concentrate upon those of an environmental nature.
*J.H.Abraham, Origins and Growth of Sociology, Penguin, 1973.
- 1.3.5. D.Harvey, Explanation in Geography, 1969, Arnold, p.402
* ibid, footnote page 446.
*I apologise for the intrusion of social psychologisms, but there does not seem to be a more meaningful phrase at present available.
14.1. R.E.Dickinson, The Regional Concept, 1976, R.K.P.
14.2 ibid. '76, page 264.
14.3.Hartshorne 1961 pages 120 to 129.
* A.Hettner, Die Geographie des Menschen. Geographisches Zeitschrift, 13. 1907 pages 413 to 414.
- 1.4.3. Hartshorne '61, page 122.
- 1.4.4. A.Hettner, 'Das Wesen, und die Methoden der Geographie, Geogr. Zr. 1905.
Here Hettner points out that zwiespaltig may mean either or both dualistic and, or discordant. It does not do justice to the German notion to translate only one half of this duality of meaning as apparently Semple did for her own good reasons. To take the notion of duality alone does not remove the option of discordancy from it. Any duality within a discipline, is according to Hettner, a discordant attribute that can not be removed by just ignoring it.

- 1.4.4. C.O.Sauer, The Agency of Man on Earth, Reprinted in Wagner & (Contd) Mikesell; Readings in Cultural Geography, Chicago, 1962.
 - *What form of determinism requires an ethic?
 - *C.O.Sauer, Land & Life. Ed. J. Leighly. University of California Press. 1963.
 - *Johnboy is one of the homefolks from T.V. series 'The Waltons'.
- 1.4.5. O.H.K.Spate Geographical Journal, 1952.
 - *Hartshorne 1961. page 175, and G.J.Martin 1973.
- 1.4.6. Spate 1952.
 - *K.R.Popper, Objective Knowledge, Oxford, 1972, page 222.
 - Nagel op. cit.
 - Consider the introduction of psychology into hazard studies by the research students of Prof. Gilbert White. Hazards were evaluated and then ranked, (see Kates et al.) This made the 'results' more easily available as data for co-relating. But this gave the research a different dimension, it assumed that the residents of a flood plain who were flooded, were moved by the same emotions as the researchers. Was this geography, or did these students have positivistic need stemming from some commitment to psychology? Or were there ideological reasons for the quasi-positivistic quantified values given to 'fear', or 'shock'?
 - *The determinism of Huntington was too obvious for those geographers who had moved towards social Darwinism. The ultimate outcome of a process had to appear to be open to choices during the process itself.
 - *Hartshorne 1961 page 410.
- 1.4.7. R.Hartshorne 1961 and Perspective on the Nature of Geography, John Murray, 1966.
 - * ibid, 1966, page 7.
 - * ibid 1961 page vii, II.
- 1.4.8. ibid. 1966 pages 8 & 9.
 - * ibid, 1966 page 172.
- 1.5.1. Excepting four, every chair of geography in British Universities, has been created within my life time.
 - * J.H.Abraham, 1973 op. cit. writes (British Sociology) "followed an erratic course, more in keeping with the insular, independent and eccentric British temperament. The early promise of a real breakthrough towards a new science of society was not fulfilled. If there is one area of interests which constitute the main pre-occupation...it is the class structure of Britain in its various manifestations. It is understandable in view of the rigid class divisions that have characterized British society." from pages 192 & 626. But this did not seem to apply to the R.G.S. where interest was taken in those who had information to contribute.
 - * The 'classical' British geographers are those whom Dickinson considers merit an entry in his books; although most seem to be of Scottish extraction. I do not defend classical nor British, they were geographers in as much as their work was part of their lives.
- 1.5.2. Quotations from Dickinson, 1976, Chapter 5.

- 1.5.4. H.J.Mackinder, 'On the scope and methods of Geography,' Address to the Royal Geographical Society, 1887.
 * Gunnar Myrdal, Objectivity in Social Research, Ducksworth, 1970. Myrdal argues that definition prior to explanation becomes mere assertion.
 * Dickinson, 1976 op. cit. page 39.
- 1.5.5. H.J.Mackinder Chisholm, Research in Human Geography, Heinemann, 1971, wrote; "in British Universities...the distinction between the two sides (physical & human) of the subject is of long standing and has in recent years been sanctified by the fact that human geography falls in the purview of the Social Science Research Council while the physical geographers are catered for by the Natural Environmental Research Council."
 *H.J.Mackinder, The Human Habitat, Scot. Geog. Mag. 1931. page 323 and also ditto in Geog. Journal, 86, 1935 page 12.
- 1.6.1. Louis Raveneau, L'Element Humain dans la Geographie, Annals de Geographie, No.1. 1892, pages 331 to 347.
 *W.Windelband, History of Philosophy, translated by J.H.Tufts, MacMillan, New York. 1901.
 *Ratzel always claimed that his work was experimental, but when various national authors quoted his work either as premises or as justification, they considered that his work was substantive.
- 2.1.1. This is an obvious oversimplification, because of the need to generalize.
- 2.1.2. 'The Peninsular' was presented in three volumes. Only vol.1, is referred to here. In the foreword the authors are named as Prof. K. Mason, School of Geography; Oxford, E.W.Gilbert, Hertford College, and R.P.Beckinsale, M.A.
 * ibid page iv.
- 2.1.5. military, is underlined by self. J.E.G.
- 2.1.8. E.Estyn Evans, The Personality of Ulster, being the Presidential Address delivered at the Annual Conference of the Institute of British Geographers, Belfast, 2nd. January 1970.
 * Sir Cyril Fox, The Personality of Britain, 1932.
 * P.Vidal de la Blache, Tableau de la geographie de la France, 1903. the reference is from; Premiere partie; 'Personalite geographique de la France.' This is a statement of the geographic individuality of France; a statement of geographic uniqueness, not a statement of personality per se, which is used by British geographers as an anthropomorphism in an attempt to relate human geography to human traits. Personality appears to be a deliberate mistranslation.
- 2.1.9. E.Evans, op cit. note five, page 18.
 * does the 'closed' landscape equate with the personality and minds of the Ulstermen? of any faction?
- 2.1.10. ibid page 1.

2.1.11 'Meaning' has become a key word within the social sciences in recent years, and has extended to an area of debate, much of which has derived from Max Weber's use of the word *verstehen*. Before me at present are:- Mary Douglas' *Rules & Meanings*, 1973 Penguin; T.E.Hill's *The Concept of Meaning*, Allen & Unwin, 1974. F.A.Hanson's *Meaning in Culture*, R.K.P. 1975; A.Brittan's, *The Privatised World*, R.K.P. 1977. R.A.Gorman's *The Dual Vision*, R.K.P. 1977; W.Pelz's *The Scope of Understanding in Sociology*, R.K.P. 1974; A.Brittan's, *Meanings and Situations*, R.K.P. 1973, and there are many others in which meaning is not clearly given in the title. Yet meaning is open to many interpretations, and is frequently only explained within the terms that each definer has a-priori bounded his case. It seems that present etiquette in writing in the social sciences demands that an author defines the region in which his terminology of 'meaning' shall operate. Here the word is used as a tautology = what is meant. J.W.R. Whitehand, 'Innovation diffusion in an academic discipline: the case of the 'new geography'.' *Transactions* 1973. Institute of British Geographers.

* *ibid* footnote 15

* *ibid* footnote 11

ibid footnote 17

2.1.12. *ibid* final footnote

2.2.1. This is the case also for Whitehand's paper. The politics concerned the control of 'knowledge' in geography.

2.2.4. There is neither sarcasm nor implied adverse criticism, *ad hominem*, in this remark. I read both of these authors with respect and consider that their respective contributions to the discipline are those of two totally sincere chroniclers. If the understanding of events in time have overtaken their contributions, this does not detract from their respective contributions to extend our knowledge. I do not believe that either was 'unconscious' of the past, as E.A.Wrigley suggested in 'Changes in the Philosophy of Geography' in *Frontiers of Geographical Teaching*. Methuen, 1965, with "The most complete prisoners of the past are those who are unconscious of it."

*Dickinson 'Regional Concept' R.K.P. 1976 page 382. This statement was made long after Whitehand and other quantifiers had written these notions off as redundant orthodoxy.

2.2.5. Hartshorne, *op. cit.* 1939, pages 466 - 468.

and

2.2.6.

2.2.7. *ibid* page 469.

*Dickinson 1976 *op. cit.* pages xv - xviii.

2.2.8. Hartshorne 1939 page vii.

2.2.10. Consider the difficulties found by the American troops in Normandy with the maps showing rivers. Many of these were merely 'creeks' by their definitions and so they crossed and confused the boundaries of battle zones.

*D.Harvey, *Explanation in Geography*, Arnold, 1969 pages, 16 - 22.

2.2.10 * From the covers and Introduction of Harvey's books
(Contd)

2.3.1. D.Harvey, 1969, op. cit. pages 19 to 20.

2.3.4. If these values are not to your liking, (they do not form a definitive list) then try to list some of your own, and offer them to a relevant other for judgement.

*It is not so long ago that W. Bunge was driving a taxi for a living, having written a contribution to contemporary geography, in which he posed the wrong questions.

2.3.5. P.Haggett, Locational Analysis in Human Geography, London, 1963.

*Ian Burton, The quantitative revolution and theoretical geography, page 147 in "The Conceptual Revolution in Geography." Ed. Wayne K.D.Davies, U.L.P. 1972.

*D.Harvey, 'Behavioural postulates and the construction of theory in human geography.' Seminal Paper, Series A, No.6. Dept. of Geog. Univ. of Bristol, 1967.

2.3.6. D. Harvey, 1969 op.cit. pages 122 & 123 explains further difficulties concerning crossing the knowledge assumptions between disciplines.

*W.Bunge, Theoretical Geography, Univ. of Lund, Sweden, 1966, especially chapters 2, 8, & 9.

D.Harvey, 1969, pages 125 & 126.

W.Bunge, 1966 op.cit.

*Oh! What would Freud have read into this?

*deviation being caused by nature, is a gross value judgement enclosed in a scientific explanation. Humanity is more complex, it would be a simple world for doctors if every ailment had a single, simple cause, for which there was single cure.

*Bunge takes this quotation from Walter Christaller in Ekistics, Vol. 16, 1963, page 257. The underlings are mine, because they indicate to me the value laden nature of an objective scientist's certainty.

*W.Bunge. 1966 op.cit. page 235.

2.4.2. Footnote.

A revolution is hardly real, if those involved with it ignore it. A publication such as Minshull's 'Regional Geography' published in 1967, should have seemed almost ludicrous at the time when geographers as students, were almost totally preoccupied with statistics. However R.E.Dickinson published the "Regional Concept" in 1967 with the strong preface; "This book is an appraisal of contributions to what has been regarded throughout the development of modern geography...as the core of its field of study...It seeks to understand the areal interrelation of physical and human spatially-arranged phenomena in terms of the concept of the region." In order to stress the notion that "the post war trends" in geography of a quantificatory nature derive from the strength of physical geographers (in numbers) in Britain, Dickinson presents, contributions "without comment". In a four hundred page book, a mere twenty pages from Chorley & Haggett, Stoddart and Chisholm represent the 'revolution'. A revolution with a seemingly low power base.

- 2.4.2. R.Minshull, Regional GEography, Hutchinson, 1967.
* R.E.Dickinson, Regional Concept, R.K.P. 1976.
- 2.4.3. Robert A.Gorman, The Dual Vision, R.K.P. 1977 page 1.
*R.J.Chorley & P.Haggett, Models in Geography, Methuen 1967,
page 38.
- 2.4.4. D.Harvey, Explanation in Geography, 1969, First quotation is
from page 16, subsequent quotations are from pages 69 to 83.
- 2.4.5. Harvey 1969 op.cit. page 173.
- 2.4.8. Ian Burton, The quantitative revolution and theoretical geography,
1963 printed in The Conceptual Revolution in Geography, Edited
by Wayne K.Davies, U.L.P. 1972, page 140.
*ibid page 150.
*ibid page 148.
- 2.4.9. Burton, op.cit. page 147.
*ibid. page 141.
*ibid page 142.
- 2.4.10.*R.Hartshorne, Perspective on the Nature of Geography, Rand
McNally, 1959, page 161 quoted by Burton 1962 page 142.
*R.Hartshorne, op.cit. page 170
- 2.4.11.The von Richtofen quotations are from Dickinson, 1969, page 83.
*W.Bunge. op.cit. page 213.
*ibid Preface to the Second Edition.
*ibid page 201.
- 2.5.1. see 2.1.11.
- 2.5.3. D.Harvey, Explanation in Geography, Arnold, 1969.
E.Nagel, The Structure of Science, R.K.P.; Harvey, 1969 first
uses his work as reference on page 4.
* Nagel, page 485.
*ditto, page 488.
*ditto, page 4
*ditto, page 4
- 2.5.4. ditto page 20, This statement influenced Harvey to such an extent
that he devoted most of Chapter 4 (1969) to expanding upon it.
* quotation from Nagel, page 27.
- 2.5.5. Burton, op.cit. pages 146 to 148.
- 2.5.6. ditto, all quotations.
Harvey 1969,
*ditto page viii.
*ditto page vii.
- 2.5.7. Burton, op.cit.
- 2.5.8. *Burton, op.cit. page 143, my underlinings.
*Dickinson, 1976.
*Alan Pred, Behavior and Location, Vols. I & II, Lund, 1967 &
1969.

- 3.1.1. Coates, Johnson and Knox, "Geography and Inequality," Oxford, 1977.
- 3.2.1. Don. Martindale. 'The Nature and Types of Sociological Theory,' R.K.P. 1961, page 27. This book offers a review of the theoretical problems attendant with sociology. It considers in detail the conceptual foundations of sociological theory, and also the philosophical foundations from which varying theories arise. It is therefore pertinent to the theoretical loans that some geographers appear to have taken from sociology, without always understanding how they were misusing a fundamental construct.
- T.Parsons, 'The Structure of Social Action.' Free Press, N.Y. 1968, page 48.
- *G.A.Lundberg, 'Foundations of Sociology,' David McKay, N.Y. 1964, pages 81 - 82.
- 3.2.5. My reading leads me to the conclusion that structural functionalism is not adequate as an explanatory model of society. It appeals to the geographical quantophrenics as shown in R.E.Pahl's Chapter 7 in 'Models in Geography' Ed. Chorley & Haggett, Methuen, 1967. As a model it fails to explain either revolution or social change. Parsons clearest exposition of this theory is probably in Parsons & Shils, 'Towards a General Theory of Action,' Harper Torchbooks, N.Y. 1962 (first published 1951). One must be careful not to confuse Parsons social action titles with Max Weber's ideas of Social Action - Parsons translated Weber from the German. The clearest setting out of an example of structural functionalism, is probably in N.J.Smelser's 'Social Change in the Industrial Revolution' R.K.P. 1959.
- 3.3.2. From D.Martindale, op.cit. page 380.
- 3.3.6. Models in Geography Chorley & Haggett. Methuen.1967.
- 3.4.1. K.Marx & F.Engels, 'The German Ideology, '47, page 7.
- 3.4.2. ibid page 20.
ibid page 23
- 3.4.4. K.Marx and F.Engels, "The Communist Manifesto," page 28.
ibid page 26.
- 3.4.5. H.J.Mackinder, "The Geographical Pivot of History," R.G.S. 1904.
page 42.
- 3.4.6. Charles Darwin, "The Descent of Man", 1880.
*ibid pages 133 to 134.
- 3.5.2. See Dickinson, 1969 op.cit.page 10.
- 3.5.3. Dickinson, 1969, op.cit. page 11.
*Chorley & Haggett, Models in Geography, Methuen, 1967, page 781.
*Jan Broek, Geography its Scope and Spirit. 1965 Merrill, page 14.

- 3.5.8. A.Schutz and T.Luckmann, "The Structures of the Life World," Heinemann, 1974. or
A.Schutz, "Collected Papers" Vol.1,2,and 3, Nijhoff, The Hague, 1962.
There is a fairly balanced paper, "Phenomenological perspectives in Sociology", in "Approaches to Sociology", Ed. J.Rex.R.K.P. 1974.
*David Ley et al.
*From T.Luckmann, page xiii in "The Structures of the Life World."
- 3.5.9. Yi Fu Tuan, "Space and Place," Arnold, 1979 page 203.
- 3.6.3. Examples are from J.S.Maclure, "Educational Documents", Methuen, 1971.
*The Newsom Report, 1968, pages 61 to 62.
*The Report on the Royal Commission on Oxford, 1852, pp 70 - 71.
*The Newcastle Report (on the education of the independent poor, including pauper, vagrant and criminal children), 1861, pages 168 to 169.
*The Plowden Report, 1967, pages 50 to 63.
- 3.6.4. R.J.Johnston, "Spatial Structures" Methuen, 1973, pages ix and pages 1 to 3.
- 3.6.5. A.Cicourel, Method and Measurement in Sociology, Free Press, 1964. pages 221 & 222.
P.Berger & T.Luckmann, The Social Construction of Reality, Penguin 1966. Chapters 2 & 3.
B.Glaser & A.Strauss, The Discovery of Grounded Theory, Aldine Atherton, 1967, page 161.
- 3.6.7. R.J. Johnston 1973, op.cit. page 4.
- 3.7.1. A.Deutscher, "Words and Deeds" in 'Social Problems', 13, 1966, page 241.
- 3.7.2. A.Schutz, "Concept and Theory Formation in the Social Sciences" in 'Collected Papers' No. 1. Ed. M. Natanson, op.cit. 1962.
*George Herbert Mead, who did not write a lot, but is often quoted.
- 3.7.3. J.E.Gately, "The Idea of a Flood," Middlesex Polytechnic, 1973.
*David Silverman, "The Theory of Organisations," Heinemann, 1970.
- 3.7.4. David Harvey, "Social Justice and the City," Arnold, 1973.
- 4.1.1. David Harvey, "Social Justice and the City," Arnold, 1973. In the Introduction.
*J.Rawls, "Distributive Justice," 1969, in Laslett and Runciman, "Philosophy, Politics and Society," Third Series, Blackwell, 1969.
- 4.1.2. E.A.Ackerman, "Geography as a Fundamental Research Discipline," Chicago, 1958. page 12.
* ibid. page 36.
- 4.1.4. Mao Tse Tung, "Four Essays on Philosophy, " Peking, 1968, page 23.

- 4.1.4. * D.Harvey, 1973, op.cit, page 301
(Contd)
- 4.1.5. D.Harvey, '73, op.cit. page 120.
* ibid. page 298.
* ibid. pages 122 & 123.
- 4.1.6. D. Harvey, '73, page 147.
* I have a bias towards those whom our society requires to be deprived. Especially for some of my fellow pupils at elementary school who suffered the deprivations of "The Slump". For my fellow soldiers who were maimed in limb, mind, or body, and for many of the pupils whom I have taught since, who falling into the lowest percentiles of academic ability have been decreed by society to justify the success of those endowed to be more able in the discrimination of competition.
- 4.1.7. D.Harvey, '73. page 298.
- 4.1.8. Saul B.Cohen, "Geography and Politics in a World Divided," Oxford. 1973.
- 4.2.2. "It is a mistake to believe that there is one authentic, pure and correct interpretation of Marx's thought, which can be held up as what he 'really' meant." R.Kilminster, "Praxis and Method," R.K.P. 1979, page 3.
* D.Harvey, "Explanation in Geography," Arnold, 1969, pages 482 and 483.
- 4.2.3. There are 34 references to E.Nagel in "Explanation in Geography." There is only one in "Social Justice" and that is a denial of a major Nagelian assertion.
* Harvey, 1973, op.cit. pages 121 to 124.
* Kuhn, 1962, op.cit. page 10.
- 4.2.4. ibid. page 162.
- 4.2.5. The first part of "Social Justice and the City" is claimed to be a liberal formulation. Various cultures make many and varied claims to, and typifications of liberalism.
* A.MacIntyre, "A mistake about Causality in Social Science," in "Philosophy, Politics and Society," Second Series, Basil Blackwell, Oxford, 1962.
- 4.2.6. Harvey, 1973, op.cit. page 309.
*The ideas and matters raised in this section stem from the problems faced when attempting to view the construction of reality from a Weberian (Max Weber) point of view.
"Alan Dawe, "The Two Sociologies", 1970, in "Sociological Perspectives," Penquin, 1971.
"Roland Robertson, in a half forgotten paper, "Towards the identification of the major axes of sociological analysis," in a forgotten book, "Approaches to Sociology," Ed.J.Rex,R.K.P. 1974.
- 4.2.7. David Silverman, in an unforgettable book, "The Theory of Organisations," Heinemann, 1970, Chapter 6.
*L.Wittgenstein, "The Blue and Brown Books," Harper Row, 1958, pages 43 & 44.

4.2.7. *Max Weber, "The Theory of Social and Economic Organisation," (Contd) O.U.P. 1947, page 94.

*Meanings of Meaning require a special bibliography.

The historical entry is "The Meaning of Meaning," by Odgen & Richards, Harcourt Brace, 1923.

The slick one is "Rules and Meanings," Ed. M. Douglas, Penguin, 1973.

The meaningful one is, "The Nature of Things," by A. Quinton, R.K.P. 1973.

The dull one is "Paradigms and Fairy Tales," by J. Ford, R.K.P. 1975.

The outstanding one is, "Meaning in Culture," F.A. Hanson, R.K.P. 1975.

4.2.9. Coates, Johnston and Knox, "Geography and Equality," Oxford, 1977.

4.3.1. *ibid.* page 19.

4.3.2. During the 1940's and into the 1950's, there began a genuine search in the social sciences, because of genuine problems, for a new nomothetic base to the disciplines. Ideographic studies slid slowly into disrepute, and thus the emphasis upon study through particularity dwindled. Search and movement was at an intellectual level that set out to negate those forms of scientific enquiry that did not follow the methodologies of the natural sciences. This movement proceeded at three levels: in the Philosophy of Science, concerning the problems of value commitment in the sciences, and in a wider social context, in that 'science' was capable of solving all the problems of the worlds (then there were two worlds, east and west). The form of the philosophy of science at the centre of the movement is termed logical positivism. J. Habermas, in 'Knowledge and Human Interests,' London 1972 shows how Comte's usage of the term defined a set of methodological rules: thus

la reel: 'all knowledge has to prove itself through the sense certainty of systematic observation that secures inter-subjectivity.'

la certitude: 'Methodological certainty is just as important as sense certainty...the reliability of scientific knowledge is guaranteed by unity of method.'

le precis: 'The exactitude of our knowledge is guaranteed only by the formally cogent construction of theories that allow the deduction of lawlike hypotheses.'

l'utile: 'Scientific cognition must be technically utilizable. Science makes possible technical control over processes of both nature and society.'

le relative: 'our knowledge is in principle unfinished and relative in accordance with the relative nature of the positive spirit.' G.H. von Wright, in 'Explanation and Understanding, 1971, suggests that there are three basic modern tenets of logical positivism: these are, the idea of the unity of scientific method amidst the diversity of subject matter of scientific investigation, or methodological monism; 'the mathematical sciences, in particular mathematical physics, set a methodological ideal for all other sciences', and 'Causal scientific explanation which consists in the subsumption of individual cases under hypothetically

4.3.2. assumed general laws of nature.'

(Contd) Logical positivism offers appealing strengths and inherent weaknesses. The strengths lie in its offer of theoretical unity and methodological consistency, by apparently assimilating the rational and the empirical. The inherent weaknesses are argued by H. Schnadelbach, 'Erfahrung, Begründung und Reflexion, Versuch über den Positivismus, Frankfurt, 1971; in that by affirmation knowledge is secured by methodological rules, but at the same time through criticism or scepticism, positivism rules out great areas of knowledge, because it must demarcate areas of knowledge that are not subject to its methodology. It establishes therefore a contrast between critical enlightenment and the defence of restrictive theory. Its history as shown in 'The Positivist Dispute in German Sociology,' Trans. Adey & Frisby, Heinemann 1976, has therefore been one of a search to establish more ways of extending hypercriticism and delimiting restrictive claims. At present the debate appears to centre about the semantics of the notion of scientism.

The difficulty for the lesser disciplines considering logical positivism concerned values. In order to be scientific, one had to be objective, and in order to be objective, one had to establish claims to be value neutral. But in order to be positivistic in such a claim, neutrality could not be enough, one had to be value free. The spirit of the times was reflected in an era of unparalleled conformity in sociology and commitment to the status quo. Positivism produced David Riesman's 'other-directedness', William F. Whyte's 'organisation man' and Daniel Bell's pronouncement of 'the end of ideology'. This stage in sociology is shown clearly by Hermann Strasser, in 'The Normative Structure of Sociology,' R.K.P. 1976, especially in Chapter 6. There had been a shift in emphasis in sociology from the actor and his orientation of action to the situation in which the action is placed. The notions of voluntaristic action, which had been formulated as a counter to positivism, had to be 'forgotten' because the needs of a unified theory of social action required a larger base, if the theory was to encompass several disciplines, which the widening social sciences drew upon in an era of growing awareness to social 'problems'. These wider notions of society required systematic knowledge concerning societies. The era of the forties and the fifties was set in prosperity for the west. As Strasser points out on page 148, "In this period, there was less need to rely on 'purely moral incentives' in the determination and maintenance of social order. The rising welfare state needed a social theory that focused, on the one hand, on social systems management in terms of fostering societal commitment through the integrative and socialization mechanism of such systems. On the other hand, deliberate planning and increasing interventions on the part of the polity called for growing scientific readiness to offer solutions to social problems which make the system work better."

Therefore in order to explain a system in terms of its structure and functions, the sociologists were prepared to relinquish their prior interests in confronting positivism as an anti individualistic force, and to turn from the view that social action was an expression of man's efforts to achieve moral values, and concentrate upon the need for institutional maintenance and continuity. Then cognition is expressed in terms of concepts of stability, equilibrium and effective functioning, as bases of social systems.

- 4.3.2. Thus a 'science' of society could be established, even if such a (Contd) science draws heavily upon logical positivism for its justification. It is the same ideology that lead to the 'revolution' into quantitative geography, at a time when the positivistic economic notion of 'endless' growth seemed to have been socialized into the majority of the population.
- 4.3.3. James Bird, "Centrality and Cities," R.K.P. 1977.
 * *ibid*, page 39.
 * ditto.
 * *ibid* page 155.
- 4.3.4. David Ley, in a lecture at Oxford Polytechnic, Summer 1979.
- 4.3.5. Derek Gregory, "Ideology, Science and Human Geography," Hutchinson, 1978; with a partial extension at the R.G.S. seminar on 31: 1: '79.
 * *ibid*, back cover.
- 4.3.6. *ibid* page 75. (see note 4.3.2. above).
 * There are no page notes in Gregory's "Ideology etc.". If it is the response to "Social Justice," that it is claimed to be, then all the book could be relevant.
 * *ibid*, page 167.
- 4.3.7. "Radical Geography," Ed. R.Peet, Methuen, 1978. But did they succeed?
 * Alexander Pope.
 * M.Chisholm, "Human Geography," Penguin, 1975, page 175.
- 4.4.1. D.Harvey, 1973, page 150.
 * 1952, Ed. Thomas, "Man's Role in Changing the Face of the Earth," Chicago. Page 987.
 * 1964, W.Bunge, "Theoretical Geography," *op.cit.* pages 5 & 6.
 * Dawson and Doornkamp, "Evaluating the Human Environment," Arnold, 1973, pages 162 and 163.
 * D.Gregory, 1978, *op.cit.* page 138.
- 4.4.3. Homans, "Bringing the Men Back in."
 * humanity, science and ideas, not Ideology, Science and Human Geography.
- 4.4.4. J.Piaget, "Structuralism," R.K.P. 1971.
 * Notes for item below: M.Chisholm, "Human Geography, Evolution or Revolution," Pelican, 1975, see page 13.
 Chisholm & Gregory talked at the R.G.S. January 1979.
 As an example of the change in attitude towards knowledge, there was a debate between Gregory and Chisholm at the R.G.S. in January 1979. This debate took on the features of revolution that Harvey had outlined. See section 4.1.5. Gregory arrived with clans of undergraduate supporters. Chisholm sought in vain how to argue to avoid a return to the conservative propositions of the qualitative and the unique, to him an archaic notion that he believed that he had helped to destroy in "Human Geography, Evolution or Revolution?" After all the quantitative revolution had delivered to him the chair at Bristol - exactly upon Whitehand's axis of knowledge. Yet in the R.G.S. Gregory had arrived with a crowd of students with whom he appeared to be conversing

4.4.4, in terms of mutual knowledge, which had reversed the proposi-
(Contd) tions of the quantitative revolution. There was no evident empirical base, and numbers were not required to explain the systems involved. Professor Chisholm did not appear to realise that if numbers and systems theory, the major tenets of logical positivism were no longer required for geographical explanation, then his chair might soon be under offer! Nor did he realise that he was just the first of the last generation of 'elder statesmen' of quantophobia who was at that moment being pilloried, and that he was in the process of suffering a first broadside in an alternative revolution, identical to his own hungry youth. As he himself said, (page 13 above), "When one is actually living through events, and indeed participating in them it is difficult to take an entirely detached view...on the other hand, one cannot stumble blindly along in the comforting belief that because there is plenty of excitement we must be going the right way."

4.4.5. Geographers have declined the cases of their works, and the nominative and accusative have been dealt with: even the vocative has been expressed. It is suggested here that "human" geographers tend to a genitive presentation of their work whilst "physical" geographers present a dative case. Harvey seems to be suggesting that their dual case inflexion should be ablative.

5.1.2. A.Quinton, "The Nature of Things" R.K.P. 1978.

*Answers to Kant's third question, "For what may I hope?" are determined by ones values, aims and beliefs from the outset.

5.1.4. Laws, in their degrees from E.Nagel, op.cit. Rules in their natures from 'The Idea of a Social Science' P.Winch, R.K.P. 1958, and also a paper of the same title by Alasdair MacIntyre in "The Philosophy of Social Explanation," Ed. A.Ryan, O.U.P. 1973. The latter may clarify the former.

5.1.5. See K.Popper's 'Clouds and Clocks', Chapter 6 in "Objective Knowledge", Oxford, 1972.

*Roy Ward, "Floods" Macmillan, 1978.

5.2.1. Halford J.Mackinder, "The Scope and Methods of Geography" 1887. and "The Geographical Pivot of History" 1904, Ed.E.W.Gilbert, R.G.S. 1969, page 18.

* ditto page 20.

* ditto page 30.

* page 31 ditto

* ibid. page 22.

5.3.1. Ask a driver of a new Japanese car, how he equates his purchase with the 'Save the Whale' window sticker, when the Japanese insist upon their 'right' to illegal whale hunting. A response runs through many theoretical justifications, because no logic can support the hypocrisy.

5.3.2. J.R.Searle "How to get Ought from Is" in "Theories of Ethics," Ed. P.Foot, O.U.P. 1977.

- 5.3.2. *Chapter One of this paper tried to stress that there is not a necessary connection between national geographies. The statements here rule out any obligation for outsiders to accept foreign rules concerning the foreigners needs to describe their earths, just as the use of my mother tongue by some of them entails no obligation for me to accept their moral values.
- 5.3.3. W.Bunge. in Annals Vol.69, No.1. March 1979 page 169.
- 5.3.5. There are eight problematic concepts that revolve around geography when the factors of the discipline are separated and analysed. Within the discipline are the nature of space, the nature of scientific enquiry, the nature of theory or explanation and the nature of knowledge. Impinging upon the discipline from outside are the nature of chosen methods, culture, facts and values, and philosophy.
- 5.4.1. Karl Mannheim, "Ideology and Utopia," R.K.P. 1936.
 * ibid pages 190 to 222.
 * ibid, page 64.
- 5.4.3. K.Mannheim op.cit. page 206.
- 5.4.4. B.B.C. T.V. 13: 10: '79.
 *H.Marcuse, "Reason and Revolution", R.K.P. 1941 page 322.
- 5.4.5. The examples of values given in this paper were those that were 'socially determined' by the ethos of those theories that were being considered in the relevant chapter section at that time and some were attempts to give examples that would be repugnant in all or some cases to all or some people holding beliefs from the spectral range available. A single concept has a wide range of meanings to a wide range of believers, although each may only hold one form to be true. Mannheim, page 245 considers 'freedom' through a range of political beliefs. 'Truth' above (5.4.3) is included in a Marxist reference, because to Western socialised knowledge, such a juxtaposition is pure contradiction. Mannheim page 247.
- 5.4.6. 'Zeitalter des Ausgleichs' attr. to Max Scheler.
 *References to the sociology of knowledge are taken solely from Mannheim, because this is a point of beginning. Radical geography in Britain has firstly to examine the sociology of contemporary knowledge in geography. It would be pointless to try to impose method, practice, theory and philosophy upon the present forms of knowledge without first examining the meanings of present geographic knowledge and the purposes that these meanings serve.
 *The present Government's 'overwhelming mandate' comes from 44% of those electors who turned up to vote without 'spoiling' their ballot papers or 30% of the electoral roll. There is a contradiction here concerning the accepted meaning of democracy.
- 5.5.1. Willi Brandt, in conversation, October 1979.
- 5.5.2. R.Kilminster, Praxis and Method, R.K.P. 1979, page 3.
 *Richard Peet et al. op.cit.

5.5.2. This is because materialism is the stuff of history Geographers (Contd) might require a different conceptual area to research.

5.5.3. L. Althusser, "For Marx", Allan Lane, 1965, page 182.

5.5.4. 'Humanistic Geography' Ed. Ley and Samuels, Croom Helm, 1978, page 301.

"Dij dink sieker ek is cynical?"

"God pellie, ek is serious."

this is given as an example of phenomenological research findings. Kilminster, op.cit. page 268.

*K.Marx, in Vorwarts, 1844 pages 22 - 23.

5.5.5. K.Marx, 'The German Ideology' pages 14 - 15.

*H.Marcuse, 'Reason and Revolution' op.cit. page 321.

* This is not a quotation, but it seems familiar.

APPENDIX

A.1.

The original research for this paper was under the title, "Problems in the conceptual and professional foundations of contemporary geography." The difficulties involved with equating geography to the notions of profession were either impossible or ludicrous. Typification and research into professions is frequently through reference to the legal and medical disciplines. The standard reference points within such studies concern the organisation and bureaucracy together with the career progressions within the relevant disciplines. Geographers find difficulty in relating their world to any discussion concerning their profession.

Solomons * verifies the notion by stating; "we shall briefly review... the educational arrangements of five professions, namely solicitors, engineers, architects, surveyors and secretaries and administrators. This list covers the more relevant professions, though there are many others which would repay attention if time permitted."* Solomons then defines by tautology, "It should be understood that the expressions 'accountancy profession' or 'the profession' in this report refer throughout to all qualified accountants, whether engaged in public practice or in industry, commerce, finance or the public service."

Solomons then qualifies all his findings, "However, many important questions are left unanswered by the statistics, and most of them could not be answered by the professional bodies from information in their possession without ad hoc investigations or specially programmed computer runs. Some questions, such as those relating to the kind of work that accountants actually do, could not be answered at all, because the various bodies have only sketchy information about their members' occupations."*

The concept of profession put forward here seems to lie in the transcendental acceptance of the script. There is a sociology of the professions * in use, but most literature concerning professions describes them as occupations that have assumed a dominant position in the division of labour, in so far as they tend to control the substance of their own work. Few geographers could see them selves in these terms, and those who are involved in geographical work tend to shy away from being given a professional label to characterise them.

The Royal Geographical Society kindly published a research request upon my behalf in the Journal dated July 1977. It was addressed to all members, who probably numbered about four and a half thousand at the time. The intention of the request was to present interested members of the Society, who by definition of membership could well be geographers, with the following letter by return.

A.2.

Dear

Thank you for showing in interest in the research that I am attempting. I began this study from considering the scientific nature of geography as problematic, seen by such contributors as Varenius and Mackinder. For example, how can the discipline successfully be both a natural science and, at the same time, a social science? The sub-disciplines that fail to adhere to this formulation and seem able to explain their subject matter in terms of the natural sciences alone have created the Earth Sciences, whilst those areas of the discipline that have attempted to explain outside the formulation of natural sciences have been labelled as ideographic. As these explanatory approaches do not represent a coherent thesis nor antithesis of geographic theory, it would appear at first sight that geography must be reducible to a set of ad hoc concepts.

I assumed that geographers concepts or ideas of reality were derived from concepts that they had brought to their discipline through their socialisation, education and in many cases from others disciplines that were in vogue during the time of their formative studies. If this were the case it would help to account for the presently accepted eclecticism of the discipline. Hence the recent generation of studies using referents from psychology, as in the Chicago studies; the anthropomorphic inputs from Lorenz, the reduction of man to plant comparisons through ecology, the reduction of both human action and inaction to the umbrella term of behaviour, and the urge to reduce both data and capta to numbers, when this has already failed in sociology. Although these formulations attempt genuinely to bring humanity back into geography they only create secondary barriers to the explanation of reality by working through false metaphors or setting up false similies.

In order to test the problematic concepts that concerned geographers, a pilot study was attempted amongst a group of academics whom I considered were involved in the transmission of geographic knowledge. A version of this pilot is included in this letter. Instead of a questionnaire, they were faced with a number of statements taken from the writings of contributors to geographical theory, and were requested to write remarks in response to these statements. Although many of the responses were returned in the form of questions, a surprising number of respondents read the statements as questions, although this could be due to their professional habit of setting questions for students to answer. But the most surprising outcome of this pilot study was the high number of respondents who denied that they were either geographers, or who were involved in dealings that give them any allegiance to geography as a discipline. In each case this was untrue by the nature of their work, yet the reasons given always appeared to be reasonable and in each view logical. The causality for arriving at these reasons was difficult to establish, but in every case was tracable to the inadequacies of the ideas and beliefs that underly geographical theory, and problems in the morality of the profession. The stated causes ranged from the extremes of "When I realised that geography depended totally upon statistics, I nearly gave up my degree.", to "There is not chance of unbiased academic advancement when the free-masonry of the I.B.G. distribute the appointments in advance, behind closed doors."

As a Fellow of the R.G.S. these 'problems' are probably not immediately relevant to you, assuming that you do not deny that geography is a serious discipline within its own right. Therefore your responses may help to extend my research by eliminating some of the variables of the pilot study and offer valuable evidence of a certain consensus group from within the discipline.

The statements below appear to be basic to present geographical theory:

- a) 'Geography exists only for the purposes of consultation by other disciplines.' (Vidal de la Blache)
- b) 'Geomorphologists are not at the centre but on the margin of geography. The geologist looks at the present that he may interpret the past; the geographer looks at the past that he might interpret the present.' (Mckinder)
- c) 'Physical and social scientists want to know what the geographer contributes distinctively to the realms of knowledge.' (Dickinson)
- d) '.....'that the distinctive aim of the scientific enterprise is to provide systematic and responsibly supported explanations.' (E.Nagel)
- e) Quantitative techniques have offered to geographers either 'a precise methodology through which the discipline may be regenerated' (Burton), or 'a shabby entry into the post-war concern of planning.' (Harvey)
- f) 'Geography, coming late to the paradigm race, has the compensating advantage that it can study at leisure the 'take-off' paradigms of other sciences.' (Chorley & Haggett)
- g) 'Science ultimately depends upon man's perception of order in the universe, the individual disciplines being distinguished not by the particular objects they study but by the questions they ask and by the integrating concepts, propositions and perspectives that their workers use.' (W.K.D.Davies)
- h) 'But geographic problems cannot be solved by the mere selection of some logically consistent methodology. Something more is needed....(which) amounts to an adequate philosophy of geography.' (Harvey)

These statements attempt to reflect beliefs concerning the purpose, disciplinary boundaries, ontology, epistemology, theory, methods, scope, utility, future and philosophy of geography. I would be grateful for your views as to the present nature of the discipline as you see it, as part of or as a reaction to the views that are at present circulated. This is not a request for a personal 'Hartshorne'; brief opinions, or comments upon the above statements would be most welcome, or directions as to where you have already made contemporary comments upon ideas, explanations and theory within the discipline. I will attempt to answer questions as far as my research will allow.

My present commitment to geography arises from having read sociology. My research for a Master's degree into 'Problems in the conceptual and professional foundations of contemporary geography' leads me to believe that geography (e.g. in the terms of Davies above) has failed to escape from the double bind of attempts to be both a natural and a social science. It further seems that the questions asked by the discipline stem from an archaic socialisation of geographers, and that the integrating concepts used arise not from geography but from disciplines that have already integrated their concepts within an acceptable paradigm, theoretical propositions are often those of the natural sciences alone, and research proposals are often collected eclectically across cultural boundaries without considering the cultural values that are carried with them.

My empirical research leads me to believe that the unnecessary disintegration of the discipline that has already begun in the U.S.A. is beginning internally in this country, due partly to the funding of the discipline from different research sources, but mainly due to confusion of ideas concerning the direction of the professional control, and the future scope, amongst some of the practitioners of geography, within academic circles. Yet Mackinder's notion that geography should be the philosophical bridge between the two forms of science still appears to be the most logical aim for the discipline.

I shall be grateful to receive your views.

Yours sincerely,

John Gately

A.3.

The pilot study circulated amongst people involved in the teaching of geographical material had generated strong claims of denial that these people were geographers or laid claim to any 'professional' status in geography. Members of the Royal Geographical Society might find difficulty in advancing such claims, but might provide indications of amateur or professional attitudes towards the discipline. In the event the request met with a response from one member only, and upon this rock my intended research into professionalism foundered. This was not due to statistical reliability nor validity but because it seemed that geographers did not exist.

A.4.

The pilot study had been forced upon the respondents through academic interactions. The capta generated covered a wide range of tones from superb abuse to Aquinasian reversals. The presentation of statements, instead of questions, appeared to many as a breakdown of the normative rules for the transactions involved in information gathering. A number of respondents worked very hard to define the rules for normative questionnaires and formulated their responses as answers to questions. When a statement involved their consciousness of what they considered to be of value in their involvement in geography, then this brought forth moral judgements, upon either the method or content of this form of procedure, and a few rather well formulated examples of remarks ad hominem.

A.5.

The pilot study as an exercise in social science, sought to discover geographers real interests in geography. It sought to discover why some geographers were deceived by the statements of others, in what terms facts were described, and how respondents used these facts. The intended search was for geographers practical moral reasonings as rule following normative persons, who would then become the subject matter of investigation.

By presenting them with a wide range of political statements used by other geographers, the respondents' views took on moralistic meanings and the values defended offered the range of rules that confined each one. There are no 'results' because the material was requested in confidence, and the only outcome would be a list of returns in each Utopia.

Appendix Notes.

A.1. D.Solomons, "Prospectus for a Profession," Publ. Advisory Board of Accountancy Education, London, 1974.

* *ibid* page 53.

* *ibid* page 1, note 1.

* *ibid* page 165.

*An outline of the 'Sociology of Professions' is given in T.J.Johnson, "Professions and Power," MacMillan, 1977. The equation of profession and power indicates that the sociology of the professions is still at a more primitive stage than the sociology of geographical knowledge, that those elusive geographers are certainly aware of.